DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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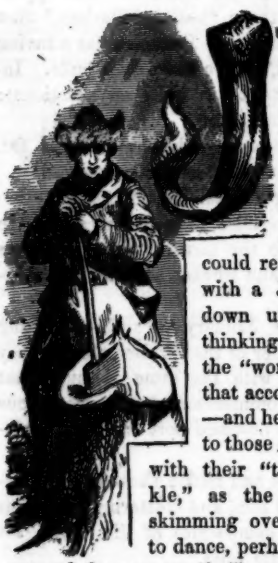
JOEL NOURSE, PROPRIETOR. OFFICE...13 COMMERCIAL ST. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

JANUARY.

Hear the sledges with the bells—
Silver bells!
What a world of merriment their melody foretells!
How they tinkle, tinkle, tinkle,
In the icy air of night!
While the stars that oversprinkle
All the heavens seem to twinkle
With a crystalline delight;
Keeping time, time, time,
In a sort of Runic rhyme,
To the tintinabulation that so musically wells
From the bells, bells, bells,
Bells, bells, bells—
From the jingling and the tinkling of the bells."

EDGAR A. POE.



JUDGE by this what a wonderful talent had poor POE, of so mingling sound with sentiment as to awaken a common chord in the bosom of almost any reader. Who could read the above lines with a July sun pouring down upon him, without thinking of January, and the "world of merriment" that accompanies its advent—and here we are listening to those same "silver bells," with their "tinkle, tinkle, tinkle," as the joyous riders go skimming over the frosty road, to dance, perhaps, "the old year out and the new year in!"

That good old custom of "merrie England," by which the meeting of the extremities of the two years seemed to complete a magnetic circle, and to cause, like the approach to each other of the poles of the natural magnet, a wonderful sparkling, so that, from Christmas to well into the New Year, "all went merry as a marriage bell," has come legitimately down to us, and is, in our opinion, far *less* "honored in the breach than in the observance." Let any one read with dry eyes or without many a merry laugh, our own IRVING'S sketch of Christmas, and we will unceremoniously pronounce him an unfeeling churl—but we do not believe there is a single reader of the *New England Farmer* who comes within our category, and every one of them, we doubt not, will agree with that elegant writer, when he says: "Amidst the general call to happiness, the bustle of the spirits and stir of the affections, which prevail at this period, what bosom can remain insensible? It is, indeed, the season of regenerated feeling—the season for kindling, not merely the fire of hospitality in the hall, but the genial flame of charity in the heart.

"The scene of early love again rises green to memory beyond the sterile waste of years; and the idea of home, fraught with the fragrance of home-dwelling joys, reanimates the drooping spirit, as the Arabian breeze will sometimes waft the freshness of the distant fields to the weary pilgrim of the desert."

Dear reader, does not that touch a tender spot in your own bosom? You cannot have travelled the highway of human existence many years without having passed scenes that you love to have, at least as often as once every year, rise "green to memory," and in which you can again revel with a reality almost sufficient to forget that they are not of the present.

Then keep up the good old custom of building a bridge, of the rainbow hues of pleasure, which shall span the imaginary ravine which divides the merry Christmas of the days of old, from the merry New Year of these times in which we live.

Who shall paint the joys inside the thrifty farmer's house on the first day of the new year? No one forgets that day; ere the sun is up, the prattler from his tiny crib lisps out: "With you a happy new year, father"—"With you a happy

new year, mother." Bless those innocent lips, both father and mother, for they at least are sincere in their wish; but not the prattler alone—from the bosoms of the hale and hearty boys and the beautiful, rosy-cheeked girls, as they first meet their loved parents on that new morn, the words rise up almost spontaneously, as if they were the bursting of the deep-sown seeds of affection, and find utterance at the lips—"Father, mother, I wish you a happy new year;" and in that family you may be sure there is a love that shall never know decay—a love so pure and holy, that when the last account shall be rendered up, it shall be found on the credit side, and of not less weight in the scale of eternal justice than piety itself.

The farmer enjoys that day. He blesses all his household; he looks about his premises and sees whether every thing is snug and right; he looks into his books, squares up his accounts, and prepares to start anew into the year that has just opened. God prosper him!

But we have to do not only with the first day of the year, but with the first month of the year; cold, blustering, persevering, happy, welcome January! The healthiest month, probably, of all the year. It is, more emphatically than any other, the farmer's jubilee. Up to late in December he has been busily engaged in the "fall work;" now it is all done. The harvest has been gathered in,—the garners and the cellars are full,—seed-time and harvest have not failed, and man and beast are amply provided for. It is the time for study, for reflection, for consultation with friends, for joyous evening assemblages, for singing in full chorus to the good old tune, "Winter"—

> "His hoary frost, his fleecy snow,
> Descend and clothe the ground;
> The liquid streams forbear to flow,
> In icy fetters bound."

It is the time "to clothe the naked, to feed the hungry, and to bind up the wounds of the broken-hearted." It is the time to be happy yourself and make all happy about you!

But while the thrifty farmer and his happy family are enjoying the warm fireside and the luxuries of the cellar inside the house, are those dumb helpers outside, without whose aid the farmer could do but little, cared for? That they are! A good farmer would sooner suffer himself, than have his cattle suffer.

We will just step into the barn, with our friend, the farmer, and see for ourselves how matters are. Well, there stands "Jim," a large, well-proportioned bay, sixteen hands high, weighing well on to 1300 pounds, eyes as bright as a new dollar, legs clean and smooth, body well blanketed, in his clean wide stall, and as his master approaches, if ever a horse laughed he does! He knows who his master is as well as we do. Our friend walks into the stall, pats "Jim" on his proudly arched and glossy neck, and see how affectionately that neck comes round, and the head of the horse rubs against the shoulder of the owner, as much as to say,—"thank you, master, for taking such good care of me. I know what gratitude is." We pass on, pronouncing "Jim" a trump and nothing else.

A large row of heads present themselves loosely fastened between the stanchions, or more freely still, by chains or straps, and as we approach they rise, and two clear round eyes from each look wistfully at us, and sure enough, there we think we see old "Swan," the upper ox of the entire ranks, give a squint down the line of heads, as much as to say, "right, dress!" and wink one eye, indicating to the others, "there's our master, receive him with proper respect, for no cattle in this world have a better."

We always did believe most faithfully in Scripture, but do not think we ever had a passage so tellingly brought to our recollection, as old "Swan's" look brought this: "The ox knoweth his owner and the ass his master's crib."

How slick and smooth and nice they all look, and so happy and contented. And even that old fellow over there, separate and apart from all the rest, with a ring in his nose, does not appear half so much like those "bulls of Bashan," that compasseth the unhappy Psalmist, "as a raving and a roaring lion," as we have seen bulls. Indeed, he seemed to be in quite an affectionate and agreeable mood.

Our farmer's cattle are indeed well cared for, and as happy, apparently, as cattle ought to be.

January is the great starting point of the year; like the diurnal meridian to the mariner, it is the annual meridian to the farmer, when he works up his reckoning, and whence he takes a new departure.

May this present January be such a starting point to every reader of the *Farmer*, that he may look back upon it with the same pleasure that one looks to the commencement of a prosperous voyage, when the destined port has been reached.

May sunny skies and fertile showers and gentle gales surround him, and clustering affections and all the sweet sympathies of life crown his circles with domestic bliss.

GRINDING FEED.

Experimental farmers have long urged the importance, and even necessity, of chopping or grinding hay, as well as other feed, for cattle and horses. The lazy drones have had a hearty laugh over the idea, and called it "Book Farming."

Now the theory of chopping, and grinding food, is based on a principle which lies at the foundation of animal physiology. Rest is essential to the accumulation of muscle, as well as fat. If we wish to increase an animal in flesh, or fat, we do not work him.

Now a cow wants one-thirtieth of her own weight in hay a day, to keep her in good order; and we may thus calculate the amount of labor required to masticate the food, and fit it for the stomach. The labor of chopping, or grinding twenty-five pounds of dry hay a day, is no small item. This excessive labor is performed by one set of muscles—the jaws; but, by sympathy, affects all the other muscles; causes the blood to circulate quicker; the breath faster, the consumption of food greater; and still the growth of the animal is retarded.

If a machine was invented to grind hay, the ground article would approximate, in value, to unground oats, in producing fat and muscle. Chopping hay and stalks is valuable just in proportion as it approximates to grinding, and relieves the animal of the labor of grinding it. An animal fed on ground, or minced food, may perform an amount of labor equal to grinding it fit for digestion, and fat as fast as another which does not labor, but grinds its own food.

Prematurely grey whiskers and beard, while the hair is still black, show the relative amount of labor performed by the jaws and the head.—*Ohio Farmer.*

NEW BOOKS.

VILLAS AND COTTAGES. A Series of Designs prepared for execution in the United States. By CALVERT VAUX, Architect. Illustrated by 300 Engravings. Harper & Brothers, New York, 318 pp.

Mr. Vaux was a partner in business of the late lamented Mr. Downing, and probably furnished to Mr. D.'s works the greater part of whatever related to architecture; between them there was a happy combination of that varied talent and skill necessary in such works to give them value and currency, and they have, therefore, met the wants of our people in a considerable degree, and have done much towards forming a more correct taste in the designs and finish of our dwellings.

The designs struck out in the work before us are not the mere results of the imagination, but have a "local habitation and a name," and shelter and afford convenience and comfort to men and women of taste and refinement. They possess the merit of having been tested, and by use are found to answer the purposes expected of them when constructed. No encomium, therefore, upon the designs is necessary; they have been tried and are not found wanting in any essential points. The book itself does credit to artist, printer and publisher; the paper is thick, fine and white, the type large and new, and the engravings finely cut and clear.

There are designs given for nearly all classes of dwellings from the cheap log-house to the mansion costing from $10,000 to $15,000, and as they are within a reasonable day's ride from Boston, by rail, any person may make personal examination of such a house as he may particularly fancy. Few persons can afford to build without first consulting some such work as this, We therefore commend the work on "Villas and Cottages" to all who can afford it, whether they contemplate building or not. We take pleasure in making the following extract:

"Architecture is entirely the invention of man, and, as it expresses his needs and his nature, it must necessarily be regulated by the laws to which he is subject. At the same time, it is equally clear, that it can have no independent laws of its own, simply because it has no independent existence. As it seeks to please the eye, its form and colors should be carefully designed in accordance with the laws of the eye, or it will be a failure, as far as this organ is concerned. As it addresses itself to the intellect, it ought to be orderly and without any appearance of accident in its conception, or it will appear unintellectual.

As it appeals to the heart, it requires to be forcibly and artistically true in its expression, or it will remain a lifeless collection of building materials; and as it ministers to the soul, it must be beautiful and pure in its intention, or it will be ugly and baneful in its influence. It is always the mirror of its age, accurately reflecting the customs, morals and science that prevail in every nation at a given period; and as these have been dissimilar at different times and places, architecture has naturally crystalized in various parts of the world into what we call separate styles."

For the New England Farmer.

COMMITTEES.

Too little care is taken in selecting persons for the examination of objects and the awarding of premiums at our Shows. They should be men of sound judgment, and practical experience, in the matters on which they are to judge. The neglect of this indispensable qualification often renders their awards the merest farce imaginable. The duty is one of high responsibility, and no honest man, void of the requisite qualifications will undertake to discharge it.

It is a rule, in some places, to name as chairman one who knows how to use the pen, who can put in readable and creditable form the decisions of his associates. To this there can be no valid objection. There are many who wear fine cloth, who can do a good service in this way, who can do but little in any other. When appointed, they should prepare themselves for the work assigned; when prepared, should be on hand to attend to it. It not unfrequently happens, on the morning of the Show, when a committee is called, no one appears, and the papers have to be passed into the hands of those hastily named, and superficially qualified. These remarks are made for the instruction of those who appoint, and those who are appointed; and if they shall chance to create any improvement in the discharge of the duties of either, the object of the writer will be fully attained.

Nov. 19, 1857.

For the New England Farmer.

MINERALOGY.

Mineralogy is intimately connected with geology, as it teaches the properties, composition and relations of mineral bodies, and the art of distinguishing and describing them. These two sciences, geology and mineralogy, are frequently taught and learned in the same connection, as in many particulars they tend mutually to illustrate and explain each other. In fact, it is believed by some authors, that the earth, or the solid part of it, was originally made one mass of solid rocks or minerals; that a bed for vegetation was produced by the decomposition of rocks; that this decomposition was effected by the expansion of water in the pores or fissures of rocks, by heat or congelation, by the solvent power of moisture, and by electricity, which is known to be a powerful agent of decomposition. Be this as it may, and it is not my purpose to entertain the subject at the present time, still it is a well known fact, that the decomposition of rocks tends to the renovation of soils, as well as their cultivation. But, that the solid or mineral parts of the earth were not all formed at one time, is evident from the fact, that no animal or vegetable remains are found in rocks of primitive formation.

Of all the memorials of the past history of our globe, the most interesting are those myriads of remains of organized bodies which are found in secondary rocks, and in alluvial formations.—These consist of numberless aquatic plants, zoophites, fishes, crocodiles, tortoises, serpents, birds, and cetaceous animals, all of a different species from any which now exist. More than thirty different species of animals have been found imbedded in the secondary strata; no living examples of which are now to be found in any quarter of the globe. Among the most remarkable of these, are the Mammoth, the Alegatherius, the Mastodon, the Tapir, &c. These were all larger than any living animals. Besides these, there have been found the remains of the elephant, the rhinoceros, the hippopotamus, the elk, &c., of different species from those which now exist, but belonging to the same genera. These fossil remains, whether they be regarded as belonging to the science of geology or mineralogy, are certainly among the most remarkable curiosities and wonders to be found in the cabinets and museums either of the old or new world.

Minerals have been variously classed by different authors. They are, perhaps, more commonly comprehended under the five following classes: earths, salts, inflammables, metals and petrifactions. Earths are generally applied to such substances as have neither taste nor smell, and are not inflammable. Salts are acids and alkalies, and the compounds formed by acids in union with alkalies, earths, and metallic oxides. Inflammables are mineral substances which may be easily ignited or set on fire. Metals are heavy, hard, opaque bodies, possessed of a remarkable lustre, insoluble in water, fusible by heat, and maleable in different degrees. Petrifactions are substances which have been turned to stone, and are incrusted within the cavities of organized bodies.

There are nine classes of *stony* minerals, of which all other rocks are composed, and which are therefore termed the *elements* of rocks. These are *quartz, felspar, mica, talc, hornblende, argillite, limestone, gypsum* and *chlorite*. These are sometimes found naturally crystalized with more or less regularity. They are also variously compounded, and usually classed according to the formation to which they respectively belong. Thus, from these *elements* we have *granite* and *gneiss*, both composed of quartz, felspar and mica, in different proportions, and according to their different peculiarities. So it is with regard to all other compound rocks.

Though no common farmer can be expected to arrive at a very perfect knowledge of all the minerals, simple and compound, included under the head of these nine different classes, yet by making a beginning with some one kind of mineral, *granite*, for instance, and improving all his leisure moments in collecting different specimens of granite, and of its constituent principles, quartz, felspar and mica, and comparing them with the description given in some good text-book, he will soon arrive at a respectable knowledge of his subject. More especially will this be the case, if he has some one, already acquainted with the subject, to accompany him, because the living description of the tongue will be better understood, than any description given in a book. Having thus obtained a competent knowledge of granite, and its component elements, quartz, felspar and mica, he is now prepared to take up and examine, in like manner, some other mineral; and thus, by improving the odds and ends of his time, "here a little and there a little," he will be able to arrive at important results.

But, in order to prosecute this study to advantage, the student should not only have a good text-book, but furnish himself with suitable apparatus for making his investigations. Thus equipped, he should direct his way into the fields of nature; and whatever mineral meets his eye, whether it be the pebble on the shore, the rock of the mountain, or the diamond in the valley, he should carefully examine it and investigate its properties; and, if it be thought worthy of preservation, he should carefully deposit it in his cabinet, in its proper place. Should he meet with more than his immediate wants require, he should preserve them for the purpose of exchanging them for those of remote places. But, above all, while he is studying into the properties, the uses, and the relations of minerals, let him remember, that they are the handiwork of the all-wise Creator, to whom he owes unbounded love and veneration.

JOHN GOLDSBURY.

ASPARAGUS BEDS.

Very many persons who possess gardens and have an abundance of room, deprive themselves of this delicacy because they think there is a great deal of trouble and mystery in raising it. There is scarcely a simpler crop produced in the garden. We have given over and over again the mode of setting out beds, and may refer to it again in our next issue, as it can be done any time before the closing up of the season by frost. Our purpose now is to give a hint as to the way of treating beds in autumn. It is this: When the stalks have turned yellow, mow them off close with a scythe, and burn on each bed its own crop, scattering the ashes evenly over it. Then

take a broad-pronged fork, which should be used in every garden, and fork over the bed, being careful not to injure the crown of the plants, and apply a top-dressing of rich, short stable manure. Let this remain until the frost is out of the ground in the spring, when the loose top should be raked off, and the remainder forked in. About the first of April sprinkle over each bed a dressing of cheap salt to the extent that no portion of the ground can be seen. This is all that will be required until the ensuing fall. A bed of asparagus, properly made in the first instance, and cared for in this way afterward, will last for twenty-five years.—*Germantown Telegraph.*

For the New England Farmer.

SWITZERLAND.

LETTER FROM MR. FRENCH.

From Heidelberg, which is in the Duchy of Baden, we took train for Baden-Baden, the place famous over all the world for its mineral springs and fashionable society, and infamous for its gambling saloons and dissipation. Beautiful and elegantly dressed ladies, in the evening, stood or sat in the magnificent public rooms of the "conversation-house," around the gaming tables, losing and winning hundreds of dollars at a single turn of the roulette. It was a sight to make one shudder to see the coolness with which they risked body and soul with their gold, to gratify this insane passion for games of chance. We drove to what is called the New Castle, which was formerly the seat of one of the secret tribunals, where all the terrors and tortures of the Inquisition were suffered by the poor victims of political or religious persecution. We descended into dungeons, closed by heavy stone doors, and into which the victims were let down by ropes from above, through trap doors, and saw the rings and racks and other instruments of torture, and the subterranean halls of judgment, where the prisoners were tried and sentenced. Then we visited what is called the Old Castle, some miles distant, a fine ruin of what was formerly a stronghold in war. It is in the midst of a heavy growth of wood, a part of the Black Forest, which extends, I think, from Heidelberg across, some forty miles. The hills around Baden are, in the grim poetic language of German taste, called the Children of the Black Forest. This forest is different from anything I have seen since I left New England. It is composed principally of oak, maple and hemlock, of very large size, and in the neighborhood of Baden the white pine is found, in its natural growth. No white pine grows in Great Britain, so far as I have observed, except small specimens planted in ornamental grounds, and those were so unlike our native growth that I could distinguish them only by careful examination of their leaves. For the information of our readers who may not have observed or studied such trifles, it may be suggested that our three most common species of pine may be always distinguished, however distorted by unnatural culture, by the number of leaves in a tassel or bunch, the white pine always growing in fives, the yellow or pitch pine in threes, and the Norway pine in twos. And, by the way, let me say that of all the evergreens I have yet seen, and I must now have seen them all, for beautiful effect in grouping, or in masses for grounds of wide extent, our common white pine, so common as to be almost despised, is in my opinion the most beautiful, and our hemlock, whether grown single or in clumps, is a far finer tree than any of the far-fetched furs or spruces. When I have leisure tc write on this subject, I have some foreign trees to recommend which are uncommon if not unknown to New England. In the Black Forest of Baden the old hemlocks seemed to nod to me as an old friend, and the white pines, with their peculiar rustle in the wind and their balsamic fragrance, almost carried me back to old Exeter.

From Baden we went to Basle, and thence to Lucerne, all the way, about two hundred miles, by rail, except about one hour in a diligence, over a mountain, where the railway was not completed. All along this route we observed fine crops of tobacco and oats, with some poor dried up crops of Indian corn. Here again we saw large hills, smooth and free from stones, covered, thousands of acres, with the grape. Here, too, we saw the storks, wading sometimes in the rivers, sometimes walking about among the laborers in the fields, as tame as hens and chickens, sometimes resting, apparantly asleep, on one leg, on little islands in the stream. They are seen flying over the villages, resting on the house-tops, and they sometimes build on the top of an old chimney, being regarded by the people as almost a sacred bird. The labor along this route is performed by single oxen or cows in carts, harnessed sometimes in collars like horses, sometimes by the hams, and most frequently driven by women. The sugar beet is extensively grown here, also, as through most of the continent. Between Basle and Lucerne apple and pear trees loaded with fruit are abundant, and apricot and cherry trees are almost always in sight. The horse beans, such as are so extensively cultivated for animals in England, are growing here to some extent. Of the architecture of Switzerland, with its picturesque curved roof, sweeping so gracefully almost to the ground, and its other peculiar features, I will not attempt yet to speak fully, leaving the topic for separate consideration in the future.

For the first time since I left America, I found on the route to Lucerne, railway cars like those in use in the United States. Throughout England

and the continent, until now, the cars, which, by the way, are in England always called carriages, are constructed in sections, each with two seats facing each other, so that half the passengers ride backwards, and each carriage accommodating about ten persons. There are usually first, second and third class carriages, the first class stuffed and cushioned and comfortable, the second in England with bare boards for seats and backs, and stiff and hard enough they are, the third not divided off so carefully, and much like the second in point of comfort. The cost of travelling in the second class in England is somewhat greater than by our first class. Most decent people take the second class, very few occupying the first class, which I tried sometimes, but soon abandoned, finding very little society there, sometimes riding fifty miles entirely alone, which did not at all answer my design in going abroad. The second class cars in France, and generally on the continent, are cushioned and quite comfortable. On all these railways you show your ticket before the train leaves, and are then locked in, and cannot get out till the guard unlocks your door at the station. Probably accidents are prevented by this precaution, and fewer mistakes made than where each man looks out for himself, and takes the risk of jumping on and off at pleasure. I was glad to find our social, free and easy style of cars here in Switzerland, for away from home our own customs and habits have a wonderful charm for us wanderers.

We reached Lucerne at about eight P. M., and it being a brilliant moonlight night, immediately took a boat, and were rowed across the lake to a bath-house on its shore, and enjoyed the luxury of a bathing in the clear waters, a familiarity we had also indulged in with the waters of the Rhine at Coblentz. The morning brought us a realizing proof that we were indeed in Switzerland, and among her mountains, for the first glance of sunrise brought us a clear view of the snow-capped mountains in the distance, overtopping the hills which surround the beautiful lake Lucerne. Embarking on the little steamer, close by our hotel, we made the tour of the lake. This is the land of William Tell, and on the lake shore we saw his chapel, erected at the spot where it is said he leaped ashore in a storm, from the boat where he was carried as a prisoner. A storm had arisen, and fear of shipwreck had induced his keepers to unbind him to assist in managing the boat. Taking the helm, he run the bark close to the point of rock which here projects into the lake, and as they shot by in the tempest, he leaped upon the rock, leaving his captors to their fate.

The scenery on lake Lucerne is said to be the most beautiful in all Switzerland. The abrupt mountains stand up, like walls along the shores, hemming in the water to the form of a river, and then suddenly falling away, through a green valley, the eye wanders over fields of grain and verdure, till it catches over the nearer hills, glimpses of the glaciers, shining in the sunlight, and again the tall peak of the Jungfrau away in the distance, white with his eternal snows.

At a small village on the shore of the lake, in the afternoon, we left the boat, to ascend Mount Rhigi. Taking horses and guides, we mounted and followed a narrow precipitous path about nine miles, slowly winding our devious way up—up, till behind us the mountain peaks on the opposite side of the lake rose up in scores, white as the unsullied snows could paint them, and brilliant with the rainbow tints of the setting sun. We found at the top a large hotel, with accommodations for two hundred persons, and crowded before night with visitors, who had come like ourselves, to behold the setting and the rising of the sun.

A storm of rain, with thunder and lightning, burst upon us, just as we arrived, which to those unaccustomed to thunder showers seemed very grand and awful, but to those of us who had spent summers in New England, it brought nothing new of fear or grandeur. At the dawning of the next day, the sound of a horn brought out the two hundred pilgrims, in a chilly, bleak morning, to witness the sunrise. A more disconsolate looking set of beings, never met to worship the god of day. Few had brought up from the valley where summer heat was raging, either overcoat or shawl, and now the morning was like chill November. Some had borrowed a blanket from their beds, others were apparelled in straw hats and thick overcoats; all were walking to and fro, wishing the job were over, so that they could retreat to the house. Finally, the sun deigned to show his head, and as his beams were caught by the distant peaks for a few moments, we began to grow enthusiastic, and to forget the wintry chill, when an envious cloud dropped like a curtain across the east, and with one accord, we turned our faces towards the hotel, forgetting our disappointment in the anticipation of a warm room and hot coffee.

After breakfast, we undertook the descent, our party on foot. The day was tolerably clear, so that we had fine views of the level country of nearly all Switzerland, spread out in one broad expanse below us. We could see herds of cows grazing so far below that they seemed no larger than grasshoppers, yet the tinkle of the bells which each wore on her neck, came up distinctly through the clear air. We met droves of cows feeding on the mountains, a fine, large breed, resembling in shape and color those which Mr. Webster and others imported as Hungarian cattle. I do not know, by the way, that I have mentioned the goats kept

for milk in this country. At various points we have met them, driven up at night like cows to be milked, and giving indications that they carried with them a good supply of milk. Our descent from the mountain furnished much amusement, partly at my own expense, for when I had walked some five miles down the almost perpendicular side, I had such warnings of the frailty of human means of locomotion, that I was glad to avail myself of one of the peculiar institutions of the country and take a chair for the remainder of the journey. A chair is a vehicle in the form of a large arm-chair, with two handles before and behind, by which it is carried by two or more men, precisely as farmers pole out hay from a swamp.

A large French gentleman and his lady were carried all the way down in this manner, the man having five bearers, who changed hands, and the lady, who was of smaller dimensions, two. The bearers prefer to have you sit with your face uphill, and ride backwards. Thus in solemn procession we proceeded down the hill, at a pace to outstrip the mules, and on the whole, as it costs no more to be carried thus than to ride a mule, I would recommend to all who try the mountains to make one experiment of this mode of progression. My companions, to my surprise, made very little fun of my ride, which I had supposed would amuse them for a week, but next morning I was uncharitable enough to suggest, when I found one of them confined to his bed by sore limbs, and another with the skin so worn from his toes that he could not walk, that they were as badly used up as I was, and did not dare to laugh at me.

This was our first attempt at much of a walk, and on the whole, was not a very prudent beginning.

But this is as much of Switzerland as you can find room for in the paper, so farewell.

Yours, &c., H. F. FRENCH.

DO BIRDS UNDERSTAND WHAT THEY LEARN?

And now comes the question whether birds do not, in some degree at least, understand what they learn. It cannot be denied that, in a state of nature, their notes and intonations are significant to each other, and convey intelligence on which they act; nor does it require much observation or credulity to lead one to the conclusion that they are not altogether ignorant of the meaning of the words which they are taught. They appl, them, at least, very often, very opportunely. We know of a parrot that was very fond of a bone—not a good thing to give a parrot by the way—and when the bird had picked it, he would whistle to and call by name, the spaniel that was suffered to run about the house. When the dog came, as he always did when within hearing, the parrot would drop the bone out of his cage; and the dog very complacently picked it up and proceeded then and there to feed upon it, the parrot looking down on him and calling him "Pretty Beau," ever and anon during the operation. When dinner was brought, the parrot would climb up the bar of its cage, and there remain, crying, "Bring Polly's sop," till something was given to it. If a bottle of ale or wine were brought in, it would say, "Waiter! Waiter! a bottle of wine and a cigar." This parrot, which was an excellent talker, had not been taught to call the dog, but he had been in the habit of hearing him called to receive bones and bits, and did likewise.—*Frazer's Magazine.*

For the New England Farmer.

ECONOMY IN BEE CULTURE.

I was pleased to notice an article in the *New England Farmer*, monthly, for June, entitled "Cheap Bee Hives," coming from the pen of one so justly celebrated as a successful apiarian. It will, I am confident, have a salutary influence upon many. The numerous attempts that have been made, and the large amount of money that has been spent to improve the dwelling of the honey bee, and which have proved futile, have caused many to think that bee culture, is a branch of rural economy that "wont pay." Others have gone back to the old box hive and brimstone, as the only sure way of getting a portion of the honey gathered by their bees. I want a cheap bee-hive—one that will give the bees ample room, and every facility for storing their food for the many months they are unable to gather from the fields, and to rear their young; one in which they will deposit for my own use the surplus they may gather, and in a style that will look the neatest when placed upon the table, or that will find a ready sale when offered in market.

The honey harvest with us is usually of but short duration, and whatever the bees do they must do quickly. If a swarm of bees are put into a hive that is lined upon the sides and top with loose particles of wood or dirt, that might prevent the bees from fastening their comb firmly, they are, from necessity, detained from their proper vocation of honey-gathering and comb-building, until they can remove it from the hive.

When the honey is plenty in the field, a large colony of bees will store it very rapidly. For instance, in June, 1856, a swarm of bees was put into an empty hive containing 1965 cubic inches, which within thirteen days from the time they were hived, was filled with brood and store comb; also two boxes, each containing 12 pounds of honey. The hive was of a very simple model, planed smooth and clean inside. Planing the inside of a hive is but the work of a few moments for a mechanic, and much less time than it would take a large swarm of bees to clear from the hive the loose particles of wood that always adhere to sawed lumber, besides the dirt and dust that usually finds a resting-place upon lumber while it is seasoning. I think the swarm of which I have made mention stored more honey than they would have done in an unplaned hive. In that particular I must differ from Mr. Quimby, thinking it true economy to plane the inside of a bee-hive, and charge the necessary expense to the bees. AMICUS.

MOUNTAIN SEEDLING GOOSEBERRY.

This is a new variety, which originated in New Lebanon, N. Y. Fruit of medium size, roundish-oval, red; flesh fine, tender, and when fully ripe, sweet, and fully equal to the best. Skin not as thick as many of the English sorts. Great grower and bearer; fruit on long stems, on drooping branches; few thorns; fruit very easily gathered. Perfectly hardy in bush and fruit, as it never mildews. One of the very best, if not the best, for general cultivation, as it is free from all the objections brought against the English sorts in regard to mildew, while it is much larger than the Houghton's seedling, a well known and fine American sort.

STRAWBERRY BEDS.

It is a common objection with amateur cultivators of the strawberry, that their beds constantly require replanting. Also that they are greatly troubled with the weeds during the bearing period. To such, and to all others not acquainted with the cultivation of this most desirable fruit, we would say, that if they will as soon this month as convenient give their beds a good dressing of short, well-rotted stable-manure, broken up finely—as solid lumps may press too heavily upon the plants—previously applying a tolerable sprinkling of wood ashes, if at hand—the plants will be preserved in fine, vigorous health, and will take a very early start when the season opens again. In the spring, very little of the manure, if any, need be removed—the plants will strike through the covering energetically, *and the top-dressing will act as a mulching, preserve the ground in a properly humid state, and prevent the growth of weeds.* We follow this plan with entire success.

It is folly to complain of a want of success in the production of any fruits, if the necessary and obvious means are not adopted to entitle us to success. Those who are unwilling to give a little time, labor and expense to their proper cultivation, had better abandon it altogether.—*Germantown Telegraph.*

THE SUGAR CANE.—It is probable that *new plants* will be gradually brought to the notice of the cultivator of the soil as long as he finds it necessary to resort to it for a subsistence, and others, not considered so good, will gradually give place to them. The Chinese sugar cane may take high rank, and long be considered one among the good ones; at any rate, we do not yet know enough about it. We are, therefore, happy to notice that Mr. J. F. C. HYDE, of Newton Centre, proposes to lecture upon it during the coming winter, for a moderate compensation, before such associations as may favor him with a call. Mr. H. has incurred considerable expense in cultivating the cane, expressing its juice and manufacturing it into syrup, and in making paper from the waste stem.

A ROUSING CROP.—It is estimated that Illinois this season will produce two hundred and eighty millions bushels of grain—more than ten bushels for every man, woman and child in the United States. This will knock the speculators into the middle of next year.—*Ohio Valley Farmer.*

MANURING ON THE SURFACE.

Surface manuring is no new idea; yet if our memory serves us, the practice is almost universally ignored by agricultural writers of the present day, as a method of manuring. It is acknowledged as a very good thing to preserve favorite plants or newly set out trees from the effect of drought, but very little beyond this. "Those who imagine," says the editor of the *Working Farmer*, "they find good results from spreading of manure on the surface, and leaving it for days, weeks or months before it is plowed under, mistake the action of the litter or longer portions of the manure as a mulch, for the action of the manure on the soil." We so far differ from this and kindred opinions on the subject, that we think manuring on the surface, for ninety-nine farmers in a hundred the best general method of application.—We except all cases where the drill application of compost is found desirable, and garden and lot culture. Nor do we maintain that there is not a more perfect method of preserving and preparing all the elements of the manure heap, by its careful husbandry under sheds, an occasional treatment with diluted sulphuric acid, or some other "fixer," a cistern to catch the drainings, and a pump to pump them back upon the heap, and patience and perseverance and constant watchfulness. A more perfect method still is that of Mr. Mechi, who applies his manure only in a liquid state, and for this purpose has his farm traversed with iron pipes, to convey the fluid to the different fields. He says it pays in England, and it may be so, though his neighbors doubt it very much. But on a Virginia farm, we think sensible men would account the Sheriff of London stark mad. We maintain that this mode of manuring (viz.: on the surface) is in itself so little inferior to the most perfect methods, that taking into consideration the circumstances of our farming population, the extent of surface and high price of labor, the attention, and time and management that the mass of farmers can give to this branch of their operations, it is for them the most economical and the best. *It will pay better.*

We ask now the reader's attention to the ammonia theory. That *ammonia* is the element of greatest value in stable manures, we do not question. That it is very volatile, flies off and escapes by exposure to the atmosphere, everybody knows. Upon these principles is based the recommendation to plow under immediately, manures which yield ammonia, that the earth may absorb and preserve it. Now let it be distinctly borne in mind, that *fresh* manure of any sort does not contain this volatile ammonia, but only *nitrogen*, which is not volatile, out of which the ammonia is formed; and that ammonia is generated only as the nitrogen putrefies in the rotting manures. If the manure accumulates in the stable, the warmth and moisture of the daily additions soon bring on active fermentation, and the pungent ammonia which assails us, is the result of the putrefaction thus caused. Until this process of rotting commences, ammonia is not formed, and the manure not liable to waste, and it ceases to be generated when the rotting is checked. Now when we are ready to remove our manure heaps in the spring, we find them usually rotting to some extent. Let us follow, and observe the whole process It is taken up first, forkful by forkful, and pitched into the cart, the ammonia, of course all the time seeking its freedom; it is hauled, reeking and smoking, a long distance perhaps, to the field; now it is dropped into small heaps, where it remains a week or so, until you are ready to plow the land. If you are ready, or when you are ready, these heaps are carefully spread out on the ground, the more perfectly the better, and then plowed under, not immediately, even under the most careful management, but as soon as it can be done—with a delay, ordinarily, of an average of some hours. Now, with all this necessary opening and forking, and tossing and spreading, our impression is, that the free ammonia is very much like the Frenchman's flea, which, when he put his finger upon it, wasn't there; the point of time when we are ready to lay hold of it, is just when we may as well save ourselves the trouble: it is not there. But let it be borne in mind, that the ammonia we have been dealing with, is that only which was generated in the rotting heap, before its removal. When the heap was opened to the air, the process of rotting ceased, and ammonia was no longer formed. Supposing, then, this free ammonia is pretty well gone, at any rate, we have the remainder of the manure, with its unchanged nitrogen, (not ammonia) to deal with. Plow this under to the depth of eight inches, and for want of the proper temperature to cause its putrefaction, it may remain unchanged and unavailable, until another plowing shall bring it up again to the influence of heat and moisture, which will disengage the ammonia. It is a frequent experience, that we plow under deeply for a spring crop, fresh stable manure, and receive no benefit from it whatever, until it is brought up again ot the surface, and the wheat crop following reaps the advantage.

But suppose, instead of making a week or two weeks' heavy labor of hauling out manure in the spring, when the teams are at best not strong, and there is a press of hard work on hand, you get rid of this necessity of hauling out and plowing under simultaneously; and hauling at your convenience, you throw the manure upon the surface of the grass field, what is the result? At the worst, as we have shown above, there is equal loss of the *free ammonia*, when the manure is plowed under. In both cases, that is about all gone, before it can be with certainty taken possession of, by any process. The mass remaining on the surface, however, the work of putrefaction, which made the free ammonia, and which was stopped by the opening and exposure of the heaps, is now recommenced and very slowly carried on by the warmth and moisture at the surface. The ammonia thus formed is absorbed by the litter above it, and washed down by every shower into contact, and combines chemically with the humus at the surface, or with the soil itself. But bear in mind, that when these frequent removals are made, we never find the heaps in such a state of putrefaction as when we postpone to some one allotted time, and therefore never have so much free ammonia to deal with. A very large proportion of the manure never begins to rot before it is removed. By this plan, moreover, we take favorable opportunities for hauling, and may carry out much of the manure in damp or moderately rainy weather, when the showers will wash the ready formed ammonia immediately into the soil.

We have thus undertaken to show, that the practice of manuring on the surface is not inconsistent with admitted chemical principles, when properly applied; and we submit the explanation to the judgment of practical men, familiar with the processes of farm management.—*American Farmer.*

For the New England Farmer.

HOW TO KEEP PARSNIPS FOR WINTER AND SPRING USE.

Let them remain in the ground as long as they can, without danger of being frozen in for the winter. Then dig them, cut off the tops, and pack them in boxes, barrels, or casks of any kind, cover them with moist earth, shaking it down so as to fill pretty solid; cover over the tops so as to keep out too much wet, and let them stand out of doors until they are well frozen, then move the vessels into the cellar, being careful not to disturb the roots, and let the frost work out gradually. The best parsnips that I have ever eaten were treated in this manner, and they were in fine eating order, from the middle of January to the middle of June. Those that follow the old method of letting their parsnips remain in the ground until spring, cannot know how much they lose in good eating, and economy. I think that parsnips would be a profitable crop to cultivate for feeding stock, particularly swine, since the failure of the potato. To insure a good crop, and good roots, be very particular in the choice of seed; always choose the largest, smoothest, and best shaped roots to raise seed from, and see that no wild parsnips are suffered to grow in their neighborhood.

MRS. N. DARLING.

New Haven, Conn., Nov. 6th, 1857.

HOW CAN SETTING HENS BE TAUGHT TO FORSAKE THE LAZY HABIT?

Make a small open pen, of laths, or some similar material, in one corner of your hen-house, about eight inches wide, and of any convenient length and height. Let one of the laths or slats be so secured that it may be easily taken out, or moved one side, so that a hen may be conveniently passed into or taken out of the pen. On the bottom of this pen, and running lengthwise through it, set up a couple of laths on edge, and fasten them about the same distance from each other, and from the sides of the pen. Run a small perch across the pen and the work is done. When a hen wishes to set, put her in there. She will soon find that she can walk leisurely upon the floor, or roost comfortably upon the perch, but she can't set without "riding on a rail," and that, they seem to think, isn't decorous. The length of time for which they will have to be confined will vary somewhat, and in obstinate cases it may be necessary to put a few pegs or tacks into the edges of the laths.—*Genesee Farmer.*

HENS.—If the legs of hens become broken, they will lay their eggs without shells until the fracture is repaired, all the lime in the circulation being employed for the purpose of reuniting the bones.—*Ohio Valley Farmer.*

HYBRIDIZATION.

MR. BROWN:—In reading the address delivered by A. R. POPE, before the *Middlesex Agricultural Society*, I noticed a few remarks upon the *hybridization of plants.* Will you please inform me through the columns of the *Farmer*, concerning the manner in which it is performed.

A. DEWOLF.

Deerfield, Mass., Oct. 12th, 1857.

REMARKS.—Shake the pollen or dust of the blossoms of one species into the blossom of another, and that makes a cross, and is called hybridization. The subject is one of interest, and ought to be better understood than it is. We have examined some authorities, and give the following as a brief illustration of the principles involved in the process.

Observing that farmers who rear cattle improve the progeny by means of *crossing* the breed, Mr. KNIGHT argued from analogy, that the same improvement might be introduced into vegetables. His principal object was that of procuring new and improved varieties of the apple and pear, to supply the place of such as had become diseased and unproductive. But as the necessary slowness of all experiments of the kind, with regard to the fruit in question, did not keep pace with the ardor of his desire to obtain information on the subject, he was induced to institute some experiments upon the common pea; a plant well suited to his purpose, both from its quickness of growth, and from the many varieties in form, size and color which it afforded. In 1787, a degenerate sort of pea was growing in his garden, which had not recovered its former vigor even when removed to a better soil. Being thus a good subject of experiment, the male organs of a dozen of its immature blossoms were destroyed, and the female organs left entire. When the blossoms had attained their mature state, the pollen of a very large and luxuriant grey pea was introduced into the one-half of them, but not into the other. The pods of both grew equally; but the seeds of the half that were unimpregnated, withered away without having augmented beyond the size to which they had attained before the blossoms expanded. The seeds of the other half were augmented and matured, as in the ordinary process of impregnation; and exhibited no perceptible difference from those of other plants of the same variety; perhaps because the external covering of the seed was furnished by the female. But when they were made to vegetate in the succeeding spring, the effect of the experiment was obvious. The plants rose with great luxuriance, indicating in their stem, leaves, and fruit, the influence of this artificial impregnation; the seeds produced were of a dark grey. By impregnating the flowers of this variety with the pollen of oth-

ers, the color was again changed, and new varieties obtained, superior in every respect to the original on which the experiment was first made, and attaining, in some cases, to a height of more than twelve feet.

The practicability of improving the species is rendered strikingly obvious by these experiments; and the ameliorating effect is the same, whether by the male or female; as was ascertained by impregnating the largest and most luxuriant plants with the pollen of the most diminutive and dwarfish, or the contrary. By such means, any number of species may be obtained, according to the will of the experimenter, amongst which some will no doubt be suited to all soils and situations.—KNIGHT's experiments of this kind were extended also to wheat; but not with equal success; for though some very good varieties were obtained, yet they were found not to be permanent. But the success of his experiments on the apple tree were equal to his hopes. This was, indeed, his principal object, and no means of obtaining a successful issue were left untried. The plants which were obtained in this case were found to possess the good qualities of both of the varieties employed, uniting the greatest health and luxuriance with the finest and best-flavored fruit.

Mr. Pope's process in hybridizing was probably a similar one. When corn mixes, as we term it, it is a process of hybridization. On referring to LINDSEY, KNIGHT, or LOUDON, our correspondent will find the matter treated so as to give him a pretty clear idea of it. It is also briefly touched on in Downing's late edition of the Fruits and Fruit Trees of America.

A VEGETABLE CURIOSITY—THE TUMBLE WEED.

Among all the examples chosen from the innumerable productions of nature to illustrate natural theology, I do not recollect to have seen the tumble weed, at it is commonly called, (I have not looked out the botanical name,) and yet if it is not a speaking witness, it is a living, moving witness that there is an intelligent creature. These may be seen moving across almost any of the large western fields in the fall of the year, and remain all winter in the corners of the fences, as if stationed to remind the passer-by that there is a God. I have just brought one of these weeds into my study. It is of the common form, and a little above the common size. It resembles a gooseberry bush, or it is of the general form and size of a farmer's corn-basket, and so nearly round or globular that a light wind will roll or tumble it along upon the ground, dropping its countless seeds all the way. And nature has not only given it this self-threshing and self-sowing power, but has connected with it a provision for getting loose. The strong thick root becomes so weak about an inch below ground, just as the weed gets ripe that a light wind will hurl it about in every direction.

For the New England Farmer.

"YOUNG MEN AND THE FARM."

MR. EDITOR:—The article in your journal of October 30, vol. 12, No. 44, under the above title, attracted my attention, and, being one of those to whom it was addressed, and whom the advice therein contained was intended to benefit, I thought, before acting upon said advice—and the time draws near when I shall choose my vocation—that I should like to propound a few questions to the author of the article above referred to. If he is advising "young men" for their good, he can easily answer them.

1st. Would you advise one to remain on the "old farm," and with the "old man" to "cultivate the productive vineyard which God gave for an inheritance," when said vineyard, in return for unremitting labor from sunrise till sunset, year after year, will hardly yield sufficient to board and clothe the family in the most common manner, and render it possible to keep one room in the house comfortable, during our long, cold winters?

2nd. Would you advise one to remain on the "old farm," where it is absolutely necessary that the females should struggle with their household duties from early morn, even before the sun gladdens the earth with its golden rays, until nine or even ten—as is too often the case—in the evening, destroying their health, cramping and weakening that intellect, which, when properly developed, transforms the woman into an *angel* who will minister to the wants of man, and strew his rugged path with flowers?

Would you advise me, then, to remain upon a farm, the household duties of which tax the female strength even beyond its power of endurance? If so, suppose another female should be added to the group which now struggles so hard for a living?

Lastly:—Would you advise one to remain on a farm which affords but few *moments*, occasionally, for study, and still fewer *means*, and less time to the women—who ought to have the most—than to the men?

If you do advise me, and other "young men," to remain upon such farms, please inform us in what manner farmers may afford to give their "women folks" a reasonable length of time, daily, and the means *for study*; for, as our farms are now conducted, females must be as *slaves*. Also, be kind enough to inform me, how I may gain time and the means for study, being penniless, and rest assured that your advice, "to remain upon the old farm, and with the old man," will be strictly followed, by A FARMER'S SON.

North Bridgewater, Nov., 1857.

REMARKS.—It is probable that only some general advice can be given "A Farmer's Son," in the midst of such an accumulation of difficulties; but his queries may draw out, from some source, valuable suggestions to all young men.

CURE FOR STAMMERING.—At every syllable pronounced, tap at the same time with the finger. By so doing the most inveterate stammerer will be surprised to find he can pronounce quite

fluently, and by long and constant practice, he will pronounce perfectly well. This may be explained in two ways, either by a sympathetic consentaneous action of the nerves of voluntary motion in the finger, and in those of the tongue, which is the most probable; or it may be that the movement of the finger distracts the attention of the individual from his speech, and allows a free action of the nerves concerned in articulation.—*Scientific American.*

For the New England Farmer.

LETTER FROM MAJOR FRENCH.

THE MONTHLY FARMER FOR NOVEMBER—MATTERS AT WASHINGTON.

MY DEAR CAPTAIN:—What do I know to interest a farmer? Well, that's a tough question for me to answer. It is not to be supposed that I know much—I, "a limb of the law," *reduced* by *reduction, ascending*, I'd have you to know, from a politician, an office-holder, an Alderman! (I have thus far escaped being *Mayor*, although I saw last summer that some of the papers honored me with that title,) to a plain, practising lawyer, it is not to be expected that I know much about farming. Still I read the Monthly *New England Farmer* as regularly as I ever did the *New Hampshire Spectator* when it was my own darling bantling!

I intended to have enlightened you, and your readers, futher about the United States Agricultural Exhibition at Louisville, and believe I promised to do so, but I broke that promise about as short off as ever an Irishman did the stem of his *dudheen*, and the why it was done was, that I left Louisville very unexpectedly the day prior to the closing of the exhibition, and my time and attention was so entirely engrossed by other matters, that I could find no time to post you up even for the short time that elapsed between the closing of the letter which I sent, and the hour of my leaving the grounds, 10 A. M. on Friday; and if the whole concern had been sunk by an earthquake in five minutes after I left it, I could not have heard, or known less about its closing hours, or its results, than I now do.

Would you like to know the reason why, at this particular time, I have undertaken to write you a letter? Well, you shall have it. I took up the November number of the *Farmer* this morning, and read it pretty thoroughly through. It interested me much more than usual; the articles struck a corresponding chord in my *Agriculto musical* gamut, and my feelings responded as you have doubtless heard the chords of a piano respond to the notes of another musical instrument played in the same room, and the feeling came irresistibly over me, that I must write to you, and so I am writing!

"*John Dunlap*," "ha! ha! ha!" so I exclaimed, and so I laughed, when I saw that old familiar name. Why, Governor, I am on the shady side of a half century, considerably so, and yet among the very earliest recollections of my boyhood, "*Johndun*," for that's what we used to call him, and for many years I supposed his name actually was "Johndun Lap," figures in the foreground. He was *the* ingenious fellow of the neighborhood. He could tinker a clock, mend a watch, solder a hole in a tin pan, doctor men, women, horses and cattle, write poetry, compound root beer, manufacture fulminating powder, cast small cannons, &c. &c. For years I have not heard of him, till I saw his familiar name, and back came his familiar face, and such a host of familiar scenes of my boyhood, that I revelled for a good hour in the past, and blessed my *old* friend—he must be pretty old now—for writing that note so characteristic of himself. I hope some person more scientific on the subject of wasps than I am, will answer his question.

I was not a little amused at the difference of opinion expressed by different writers about the *sorghum*. There is your correspondent "I." of Princeton, Mass., who is down on the "wonderful cane" worse than "a thousand of brick," fully equal to an entire brick wall thirty feet high, and a hundred feet long! he does not believe in it, not by *any* means; and "J. D. Canning," *he* thinks common corn stalks will make as good molasses as the sugar cane. "J. H. N.'s" experience is somewhat more encouraging, though not by any means up to the wonderful *theoretical experience* expressed a year or more ago, by the sanguine. "J. H. N's" pig did not show any remarkable fondness for it as fodder, and his cow exhibited her want of *good taste* in the same way. My cow is a *female* who knows what's good, and she made way most ravenously with a small patch which I raised in my garden merely for fodder. "L. W. M." tried his hand at syrup, making it with the sugar cane and with *corn stalks*, and the corn stalks beat all hollow, both in the production of quantity and quality! which very properly led your friend "L. W. M." to the conclusion that the *wonderful sorghum* was pretty much another *wonderful Moras Multicaulis* humbug! And then we come to your own, "*one hour's* experience on the first sugar estate of Massachusetts." You ought to have staid longer, Governor. "An hour" wont do to find out all the mysteries of Chinese sugar cane! However, your advice is excellent, and is not backed up by the undue expression of either hopes or fears. You are calm, "calm as a summer's morning," and the motto in *Gil Blas*, "patience, and shuffle the cards," hits your ideas exactly; patience, and try the experiment fairly and carefully before condemning, is what you desire, and you are right; but I rather guess when it is thoroughly tried to the end, the end will be found somewhat more *bitter* than *sweet!* The cane I raised here, grew well, and to the height of from ten to fifteen feet. I had not sufficient to try any saccharine experiments, and so used it for fodder in September, and for that purpose I have no doubt it will be valuable, "J. H. N.'s" cow to the contrary notwithstanding. But for sugar, I think I should prefer one good rock maple tree, to considerable of a lot of sorghum.

Judge French's letters from Europe are a shining light to your pages. He certainly *observed* well and thoroughly during his travels, and he possesses, beyond almost any writer within my knowledge, the faculty of enlivening his descriptions with queer and witty suggestions, which provoke a laugh, while reading of the most serious matters. Who can read his description of the relics exhibited in the Church of St. Ursula at Cologne, with a sober countenance? And the conclusion which follows his description of oxen

drawing by their heads, and women carrying burdens on theirs, "that cattle and women are stiff-necked enough for most practical purposes," and his consoling idea, when he lost his umbrella at Waterloo, that the guide would probably "dig it up next year and sell it as Napoleon's," are fair specimens of his manner of adding a lively thought to a sober subject. You and I *have a right* to think well of the Judge's writings, and speak well of them too, for did he not come to man's estate under our eyes, and our bright examples!

Another chapter of contradictory opinions contained in the number of the *Farmer* before me, exists in the articles relative to that rascally destroyer of fruit, the curculio. Mr. Underwood thinks the keeping of fowls among the fruit trees is a certain remedy, while, *per contra*, Mr. "J. B. G." thinks quite the reverse. There is something very curious in regard to the ravages of this insect. My garden formerly contained quite a number of plum trees, and year after year, almost every plum was destroyed by the curculio. One year, three or four years ago, not a curculio was to be seen; the plums grew unmolested, and ripened beautifully, and I flattered myself that in some miraculous manner, that pest of the orchardist and plum-grower had got his quietus; and the following spring I entered with a hopeful spirit, on the preparation of my trees for the production of a harvest of fruit; but, alas, alas, I had crowed too soon; the bloom was superb, the young fruit came in abundance, and so did the curculios! and not a perfect plum was left.

From that time I gave up. I believe I have but one plum tree left, "the Washington plum," that blooms and produces young fruit in abundance annually, which is annually destroyed by that "ugly bug," and it is now some three or four years since I have had the pleasure of eating a fair ripe plum from my own garden. I undertook to console myself by raising pears, and had a half a dozen trees planted, which grew and began to produce as fine fruit as I ever saw. A handsomer bloom than that of last spring could not be desired, and the fruit set in abundance; in June or July, the ends of some of the limbs began to turn black. I carefully cut them off, the disease did not stop, and I cut and cut, till I was tired, and of six as thrifty trees as you ever saw, there are five as black and dead as if they had been cut off at the ground in July. A single one remains, which gave me a good crop of the Seckel pear, and I expect that will "depart this life" next year. I do not see why the others did, or why this should not! In September, I was at the house of a friend in Ohio, and in passing around his grounds, I saw pear tree after pear tree as black as if its leaves had been made of ebony. I remarked, "you have the fire blight among your pear trees, I perceive." "Yes," said he, "and fear I shall lose them all." "Is there no remedy?" I asked, upon which he told me this anecdote. A gentleman well known to him, who had a fine pear orchard which was in the process of destruction, was asked what he thought of spiritualism. He replied that he had heard much about it, and of many wonderful revelations from the spirit-world, but never any thing practical or useful. "Now," said he, "if you will find a medium who will ascertain, and inform me what will prevent the fire blight among pear trees, and if it proves successful, I will give five hundred dollars." My friend added, "the medium has not yet made the discovery, and therefore I know no remedy!"

I have in my garden three crops that *never fail*, grapes, figs and *weeds!* The Isabella and Catawba grapes ripen in perfection, and we have as many as we desire to eat from August to November. We have two crops of figs every year; one in July, and another in October. They grow large, ripen finely, and are delicious, and as yet nothing has appeared to mar either my grapes or figs.

I believe I have commented on the *Farmer* sufficiently for once, but my *better half* is anxious to be informed, whether, when you give hens cayenne pepper to make them lay, *the eggs will want peppering when cooked!*

Notwithstanding the smashing and cracking among banks and individuals, Uncle Sam goes on in the even tenor of his way here. The extension of the Capitol, the Post Office building, the Treasury building, the Patent Office, the building of the Aqueduct, and other public works, go on rapidly, and thousands of men, who would, were it not for these works, be out of employ, are blessed with "leave to toil," and are happy in the enjoyment of that blessing.

The new Hall of the House is progressing fast to completion, and, it is said, will be ready for the reception of the next House of Representatives on the first Monday in December. The new Senate Chamber is not so forward, but is progressing, and both are perfectly magnificent rooms.

The first row of columns upon the dome is in process of erection, about half of them are up. I asked a workman the other day, while standing on the foundation of the dome, how long it would take to complete it; his reply was, "seven years." I do not think he fixed the time any too long, and my belief is that in ten years the extensions and dome will not more than be completed. All the streets around the Capitol are filled with marble, and I cannot turn my horse and carriage at my own door, so completely is East Capitol Street encumbered with marble. From the eastern gate to Third Street, this street, one hundred and sixty feet in width, is, with the exception of a narrow carriage way, completely blocked up, and so are First Street, A Street, North and South, N. J. Avenue, the space in front of the Capitol, and the circular street north of it. I mention this by no means in a complaining mood, but as evidence of what is yet to be done.

The times prognosticate a good deal of distress among the poor here and elsewhere. I hope, for their sake, we may have a mild winter. The weather now is summer-like, thermometer indicating seventy-four degrees, in the open air.

Ever thine, B. B. FRENCH.

Washington, Nov. 9, 1857.

CELESTIAL SUGAR CANE.

The *Nasta Reporter* having published an account of a fall of sugar in that locality, from the heavens, which called forth the doubts of a portion of the press, thereupon that paper comments on the phenomena as follows:

"We repeat that our statements were correct. Not only so, but on Friday night, 11th inst., the

celestial sugar makers, having a special regard for our reputation for veracity, sent another shower of the same sort in the same neighborhood, which covered the ground for miles with sugar. We call it sugar, because it looks, feels and tastes like sugar, and nothing else, and we know no better name for it.

Whether it is solidified honey-dew, the saccharine juice of the sugar pine, taken up, brought from afar and dropped in crystals by some atmospheric *hocus pocus*, or the leakings from celestial refinery, we do not pretend to say. We saw three small boxes of the article, and have one of them now before us. Some of the specimens before us are three-fourths of an inch long, and of the diameter of a small goose-quill. One person at Clear Lake made half a gallon of fine syrup by dissolving these crystals."

For the New England Farmer.

THE SEASON AND THE CROPS.

Mr. Editor:—After the growing season is completed, and the crops all gathered in, it may be well to look back and recount those meteorological phenomena of the past, which have brought about those results on which the farmer depends for his prosperity. The five months of the growing season, from May to September inclusive, have been one degree and eighty-three hundredth (1.83) colder than the average of the same months in the four preceding years, and one degree colder than last year, the coldest of the four; while rain has been quite abundant—twenty-two inches having fallen in the five months. In May there fell five inches and sixty-four hundredths, (5.64); June, 5.50; July, 3.93; August, 5.19; September, 1.75. While last year, May, June and July were rather dry, and August excessively wet. The first thunder was heard on the 28th of May. Thunder was frequent through June and July, and but little in August and September. The first light frost occurred on the morning of September 7th, and the first frost hard enough to kill vegetables, on the 30th, which was not very severe.

There has been five months this year already colder than the same months in any of the four preceding years, namely, January, April, June, July and September, while February has been the only month warmer than any of the four preceding years.

The first twenty days of June were characterized by a low temperature and wet weather. We had no frost in June, but a temperature frequently bordering on frost, which kept corn in a backward state. We had no east wind to blast the fruit blossoms, except a light aspiration on the evening of the last day of May. June had a mean temperature of 60.43 degrees, being 4.49 degrees colder than the mean of the four preceding years, and 2.20 degrees colder than 1856, the coldest of the four. Rain fell on sixteen days.

July had a mean temperature of 69.42 deg., being 0.88 colder than the mean of the four preceding years, and 2.62 deg. warmer than 1853. Its maximum heat of 88 degrees, occurred on the 15th, and was three degrees colder than the extreme of 1856. Rain fell on sixteen days. The temperature affected the corn crop unfavorably, by keeping it in a backward state, while it preserved its vital energies for the succeeding months.

August had a mean temperature of 65.35 deg., which was more favorable, though a little colder than the mean of the four preceding years, and nearly two degrees warmer than last year. Rain fell on sixteen days, but much less in quantity than last year. The favorable weather of this month redeemed the corn crop from destruction, or there would have been a total failure, as in 1816. It is a singular coincidence that rain should fall on an equal number of days in three successive months.

September had a mean temperature of 57.13 degrees, and was 1.50 degrees colder than the four preceding years, with a little less than the average amount of rain. Rain fell on ten days. The lowest temperature was 33 degrees, on the morning of the 30th, when the first hard frost occurred; previous to this time there was not frost enough to kill tender vegetables, and consequently corn had a good opportunity to ripen. Corn is much less than an average crop; although well ripened, the ears are short and poorly filled. There has probably not been a more unfavorable season in this vicinity since 1816. Wheat has been a partial failure. The weevil and the rust have done their work of destruction to a great extent, but there is a new enemy in the field—a small striped worm about one-tenth of an inch long, perforates the kernel at the germ, after the kernel is grown, and while in a milky state, and destroys the flour, while the kernel retains its original shape. Although this insect has done but little damage, and has been noticed by few, yet it may be well to record the fact, as it may prove a formidable enemy in coming years. Its name, history and habits are all involved in obscurity. The perfect insect is unknown. I have seen but a single larva, but I examined the crop at harvest, and witnessed their depredations, but they were gone. Can you or any of the readers of the *Farmer* give more light on the subject?

No crop this year has yielded more bountifully than oats. No enemy destroys the crop, and the low temperature and wet weather were congenial to their growth.

Potatoes are below a medium crop. Although the season has been a wet one, potatoes have not attained their usual growth. The rot in many instances has done considerable damage, but not much more than usual, and at present there appears to be no scarcity.

The grass crop was excellent in growth, but owing to the wet weather it sustained much damage in curing, besides losing a portion of its gum in the growing season, so that in nutritious qualities it may not much exceed a medium crop.

There is a moderate crop of fruit, and of the various kinds; apples are the most abundant, being sufficient in quantity to supply the demand. Plums are nearly a total failure, for nearly the whole crop was destroyed by the curculio. Grapes are a fair crop. Walnuts, butternuts and some wild fruits are remarkably abundant.

Among the periodical phenomena, we notice the appearance of various kinds of migratory birds. Blue-birds appeared March 17th; Robins, March 26th; Whip-poor-wills, May 5th; and Barn Swallows, May 9th. Grass, first appearance

of growth, April 6th; general leafing of forest trees, May 23d; barn swallows finally disappeared, Aug. 29th, although most of their number were gone a week or two previous. General fall of forest leaves took place Oct. 22d.

Such are the results of a meteorological record of 1857, with three observations daily—at 7 A. M., 2 P. M., and 9 P. M., besides observations of other casual and periodical phenomena, and a comparison of them with the four preceding years.

D. BUCKLAND.

Brandon, Vt., Nov. 10th, 1857.

REMARKS.—We are obliged to our attentive correspondent for this review of the past season, and the state of the crops. Among the best works on entomology are Harris's "Insects Injurious to Vegetation," Fitch's Treatise, Kollar, a German writer, and Kirby and Spense. There are others of distinguished ability, but these are the popular works in use. Harris's work may be found at the bookstores in Boston, but we do not know at what price.

For the New England Farmer.

THE THINGS I RAISE.

SWEET POTATO.

This crop is one of uncertainty, though, if started early in hot-beds, and set out on dry, sandy land, you are pretty sure of getting a fair crop of potatoes of good quality. Two years ago my sweet potatoes were better in quality than any I could buy. They are not profitable, however, as I raise them, purchasing my slips in Boston at a dollar a hundred, and have from twenty-five to fifty per cent. of them die, and then the risk of the season for the remainder. I think on a light, early soil, with my own plants started early, I could make it profitable growing this crop. Those persons who raise the slips make a large profit, as each potato yields so many slips; for as soon as one set is removed others appear, and so on.

DIOSCOREA BATATAS, OR CHINESE YAM.

There has been a great noise made about this new tuber, some claiming that it will entirely displace the potato, which, of late years, is so liable to rot, while this yam is not at all subject to that evil. I believed it a humbug, but purchased two roots of Messrs. Hovey & Co., last spring, for which I paid fifty cents each; these were planted whole, being about fifteen or eighteen inches long, and one or one and a half in diameter, in the largest part. These yams do not grow as some other sorts of yams, horizontally in the ground, but they run down like a parsnip, being, as the boy said of the flip iron, "biggest at the little end," that is, they are quite small at the surface of the ground, and continue small for eight or ten inches, when they begin to grow larger for the next eight or ten, and then taper off very fast in the next three or four inches to quite a short point in some instances, while in others they are largest at the extreme lower end. The color is white outside and in; when boiled, of a bluish white, like boiled rice, and having much the same taste; sticky and starch-like, not mealy like a ripe potato, though I presume they would be where the season was long enough to allow them to ripen. The tops or vines trail on the ground like the sweet potato, running often twelve or fifteen feet, and are readily eaten by cattle. They may be staked up like pole beans, or left to run over the ground.

The root that is planted decays, and other tubers appear, from one to three in a hill, often not more than one, but that of a large size; one of my roots yielded two yams that weighed together four pounds, the other one weighed two and a half pounds. On the tops or vines were produced scores of little seed yams that will answer for next year's setting. The yams may be grown from slips like the sweet potato, or cut in pieces and planted like the common potato, or from the little seed yams. It requires three years for these small ones to become large. It is said that they will remain in the ground through the winter without injury, but I have not tried it. It seems to delight in a deep, rich, sandy loam, though I should not advise putting strong manure in contact with the tubers. I have changed my mind somewhat, in regard to it, and would recommend it for further trial, though I think it is much easier and cheaper to grow potatoes, if they do not rot. I intend to plant a few next season to test them more thoroughly. I would here caution all those who grow them for the first time to be careful in digging them, for they are very brittle, and snap like pipe stems; they cannot be pulled on account of the form, but must be dug out, which work is very much like digging a well, for they often extend down twenty-five to thirty inches. An immense quantity could be grown on an acre, for they take up but little surface, the roots invariably tending downwards.

JAMES F. C. HYDE.

Newton Centre, Nov. 10th, 1857.

For the New England Farmer.

ILLINOIS.

Times in—Prices of Wheat and other Grains—Frost and Snow—Prairies on Fire—Rapid Growth of Villages—Nature and Productiveness of the Soil—Error in regard to Potatoes.

Although some time has elapsed since I last wrote, I have not forgotten my promise. During this lapse of time, what great changes have passed over the people of the United States. Three months ago, how many were sailing gracefully upon the tide of prosperity who are now in poverty, and how many are now in large cities of the East, who know not where to get their bread, and a cold winter staring them in the face!

The financial panic of the East has cast its dark shadow over Illinois. There is little money in circulation, compared with three months ago. Every thing down to the lowest figure. We are overflowing with grain of all kinds, and it is worth little or nothing. Wheat down to 50 cts., oats 17 cts., and still going down, down, down; cows that could not be bought for $30, three months ago, are now down to $18. Every thing is coming down but land—that is still up.

We are having the finest weather imaginable. The ground has frozen twice this fall, but not a snow flake has yet graced our prairies. The fall has been very dry. Now is the time for fires. To those who never saw a prairie on fire, it is dif-

ficult to describe the magnificence of the scene. What can be more beautiful than to look out in a dark night and see the heavens illuminated in every direction by them.

I believe in my letter to you, of August 18th, I did not say much in regard to this place, and the farming country in general. I will describe this village, of only two years' existence. The inhabitance number about one thousand; we have one church, one school-house, three hotels, and ten stores; a steam grist mill will soon be completed. So much grew up on a wild prairie in two years. The prairies about here are rolling, but not enough to hinder cultivating them all. The soil is from two to three feet deep, and is very black, rich and productive. The wheat crop usually averages from 20 to 30 bushels per acre; oats 60 to 80; corn sometimes exceeds 100 bushels; potatoes, from 200 to 300 bushels are not an uncommon yield, and of the first quality. I was very much disappointed in this respect, for well do I remember of my friends telling me before coming West, that I could never even raise good potatoes in Illinois. But I never saw in Vermont, or any other State, better or larger potatoes than have been raised here. When Eastern people come West, they generally remark, "You cannot raise good potatoes here, I suppose." This idea seems to prevail in the minds of Eastern people, to a great extent; but they are in error in regard to it. D. J. BENTON.

Manee, Ill., Nov. 5th, 1857.

PLEASURE OF READING.

Of all the amusements that can possibly be imagined for a working man, after daily toil, or in the intervals, there is nothing like reading a newspaper or a book. It calls for no bodily exertion, of which already he has had enough, perhaps too much. It relieves his home of dulness and sameness. Nay, it accompanies him to his next day's work, and gives him something to think of besides the mechanical drudgery of his everyday occupation; something he can enjoy while absent, and look forward to with pleasure. If I were to pray for a taste which would stand by me under every variety of circumstances, and be a source of happiness and cheerfulness to me through life, and a shield against all its ills, however things might go amiss, and the world frown upon me, it would be a taste for reading.—*Sir John Herschell.*

WARMTH OF THE SOIL.

The warmth of the soil, under a clear sun, is surprisingly above that of the air, the difference being, even in temperate climates, as high as sixty-five degrees. Thus Schubler finds in July, when the air is 81 degs., the soil will be 146 degs.; and during one of his observations at Tubingin, in Germany, the air stood at 78 degs. and the soil at 152 degs., a difference of 74 degs.! With surfaces of the same color, the materials composing the soil make little difference in its capacity to become heated provided they are in similar states as to dryness. Sand, clay, loam, garden-mould, &c., show very little difference with the thermometer. Color, however, has a powerful effect. Although exposed to the sun for hours, differently colored earths never attain the same temperature, the lighter colored always remaining considerably cooler. The conclusion seems inevitable that in some countries the surface soil must occasionally approach 200 degs. Fahrenheit. Under such a degree of heat the decomposition of the organic matter of the soil must go on rapidly, with the evolution of much ammonia and carbonic acid, agents which play an important part in the modification of the mineral matter of the soil, as well as stimulate vegetation.—*Anon.*

MR. EVERETT'S ADDRESS,

DELIVERED BEFORE THE NEW YORK STATE AGRICULTURAL SOCIETY AT BUFFALO, OCTOBER 9, 1857.

We have perused this address with more gratification than we ever did one on similar subjects, and for several reasons. Mr. Everett is a ripe scholar, and has, as the address indicates, explored books so thoroughly as to gather from them what it is that confers upon the physical condition of man the largest amount of permanent happiness. He is also acquainted with various phases of human life,—for to his scholarship may be added his experience as a statesman, both at home and abroad, and that gained while presiding over the interests of perhaps the highest institution of learning in our land. And while this address gives evidence of close study, and even deep research, it shows that Mr. Everett's observation of the different occupations of men and their influences upon their lives, has been active and intelligent. The editor of the Buffalo *Advertiser*, who listened to the eloquent words of which we are speaking, says:—"It is not too much to say that this last effort of the accomplished orator is equal to anything that he has yet given to the world. Nothing could have been more appropriate to the occasion, more complete in every part, and more richly freighted with noble ideas and brilliant passages. In its practical common sense as well as in its masterly eloquence, the address will stand unequalled amongst similar productions, casting the past into the shade and furnishing a model for the future. There are certain portions which must remain impressed upon the memory of all who listened. Amongst these are the magnificent denunciation of the doctrine which holds that a miracle cannot be worked upon this earth; the allusion to the heroes of former, and the great statesmen of our own days, who have devoted such of their time as was not given to their country, to agricultural pursuits; the withering denunciation of the stock gamblers of Wall Street; the comparison of the fever of city life with the calm repose enjoyed by the dweller in the country; and the picture, unrivalled by the pencil of Goldsmith, with which the splendid address was brought to a close, and which impressed us with the idea, as the voice of the orator ceased,

that we had just turned from the contemplation of a beautiful painting."

We abbreviate this noble production with great reluctance, but are entirely unable to give it all. It should be published in cheap pamphlet form, and a copy preserved not only in every farm-house in the land, but in the counting-room of every merchant in the land,—for after all, it is he who needs it most. We suggest, also, that the Massachusetts Society for the Promotion of Agriculture should place it in the compilation which we understand they contemplate issuing. We gladly yield our usual editorial space, and will give all we can find room for.

AGRICULTURE REQUIRES THE RESOURCES OF SCIENCE AND ART.

But although Agriculture is clothed with an importance which rests upon the primitive constitution of our nature, it is very far from being the simple concern we are apt to think it. On the contrary, there is no pursuit in life, which not only admits, but requires for its full development, more of the resources of science and art, —none which would better repay the pains bestowed upon an appropriate education. There is, I believe, no exaggeration in stating that as great an amount and variety of scientific, physical, and mechanical knowledge is required for the most successful conduct of the various operations of husbandry, as for any of the arts, trades, or professions. I conceive, therefore, that the Legislature and the citizens of the great State over which you, sir, (Governor King,) so worthily preside, have acted most wisely in making provision for the establishment of an institution expressly for agricultural education. There is a demand for systematic scientific instruction, from the very first step we take, not in the play-farming of gentlemen of leisure, but in the pursuit of husbandry as the serious business of life.

A NEW WORLD OF AGRICULTURAL RESEARCH.

But when science and art have done their best for the preparation of the soil, they have but commenced their operations in the lowest department of agriculture. They have dealt thus far only with what we call lifeless nature, though I apply that word with reluctance to the generous bosom of our mother Earth, from which everything that germinates draws its life and appropriate nourishment. Still, however, we take a great step upward, when, in pursuing the operations of husbandry, we ascend from mineral and inorganic substances to vegetable organization. We now enter a new world of agricultural research; the mysteries of assimilation, growth and decay; of seed-time and harvest; the life, the death, and the production of the vegetable world. Here we still need the light of science, but rather to explore and reveal than to imitate the operations of nature. The skilful agricultural chemist can mingle soils and compound fertilizing phosphates; but, with all his apparatus and all his re-agents, it is beyond his power to fabricate the humblest leaf. He can give you, to the thousandth part of a grain, the component elements of wheat,—he can mingle those elements in due proportion in his laboratory,—but to manufacture a single kernel, endowed with living, reproductive power, is as much beyond his skill as to create a world.

Vegetable life, therefore, requires a new course of study and instruction. The adaptation of particular plants to particular soils and their treatment, on the one hand, and, on the other, their nutritive powers as food for man and the lower animals, the laws of germination and growth, the influences of climate, the possible range of improvability in cereal grains and fruits, are topics of vast importance. The knowledge—for the most part empirical—already possessed, upon these points, is the accumulation of the ages which have elapsed since the foundation of the world, each of which has added to the list its generous fruit, its nutritive grain; its esculent root, its textile fibre, its brilliant tincture, its spicy bark, its exhilarating juice, its aromatic essence, its fragrant gum, its inflammable oil—some so long ago that the simple gratitude of infant humanity ascribed them to the gift of the gods, while others have been brought to the knowledge of the civilized world in the historical period, and others have been presented to mankind by our own continent. No one can tell when wheat, barley, rye, oats, millet, apples, pears, and plums, were first cultivated in Europe; but cherries and peaches were brought from the Black Sea and Persia in the time of the Roman republic; the culture of silk was introduced from the East in the reign of Justinia; cotton and sugar became extensively used in Europe in the middle ages; maize, the potato, tobacco, cocoa, and the Peruvian bark, are the indigenous growth of this country. Tea and coffee, though productions of the Old World, were first known in Western Europe about two centuries ago; and India rubber and gutta percha, as useful as any but the cereals, in our own day.

THE DOMESTIC ANIMALS ATTACHED TO THE SERVICE OF MAN.

But there is still another department of Agriculture, which opens the door to research of a higher order, and deals with finer elements,—I mean that which regards the domestic animals attached to the service of man, and which are of such inestimable importance as the direct partners of his labors, as furnishing one of the great articles of his food, and as a principal resource for restoring the exhausted fertility of the soil. In the remotest ages of antiquity, into which the torch of history throws not the faintest gleam of light, a small number, selected from the all but numberless races of the lower animals, were adopted by domestication into the family of man. So skilful and exhaustive was this selection, that three thousand years of experience—during which Europe and America have been settled by civilized races of men—have not added to the number. It is somewhat humbling to the pride of our rational nature to consider how much of our civilization rests on this partnership; how helpless we should be, deprived of the horse, the ox, the cow, the sheep, the swine, the goat, the ass, the reindeer, the dog, the cat, and the various kinds of poultry. In the warmer regions, this list is enlarged by the llamas, the elephant, and the camel, the latter of which, it is not unlikely, will be extensively introduced in our own south-

ern region. It may be said of this subject, as of that to which I have already alluded, that it is a science of itself. No branch of husbandry has, within the last century, engaged more of the attention of farmers, theoretical and practical, than the improvement of the breeds of domestic animals, and in none, perhaps, has the attention thus bestowed been better repaid. By judicious selection and mixtures of the parent stock, and by intelligence and care in the training and nourishing of the young animals, the improved breeds of the present day differ probably almost as much from their predecessors a hundred years ago, as we may suppose the entire races of domesticated animals do from the wild stocks from which they are descended. There is no reason to suppose that the utmost limit of improvement has been reached in this direction. Deriving our improved animals as we generally do from Europe,—that is, from a climate differing materially from our own,—it is not unlikely that, in the lapse of time, experience will lead to the production of a class of animals, better adapted to the peculiarities of our seasons than any of the transaltantic varieties as they now exist. The bare repetition of the words draft, speed, endurance, meat, milk, butter, cheese and wool, will suggest the vast importance of continued experiments on this subject, guided by all the lights of physiological science.

AGRICULTURE MORE FAVORABLE THAN CITY LIFE.

I do not claim for agricultural life in modern times the Arcadian simplicity of the heroic ages; but it is capable, with the aid of popular education and the facilities of intercommunication, of being made a pursuit more favorable than city life to that average degree of virtue and happiness to which we may reasonably aspire in the present imperfect stage of being. For the same reason that our intellectual and moral faculties are urged to the highest point of culture by the intense competition of the large town, the contagion of vice and crime produces in a crowded population a depravity of character from which the more thinly inhabited country, though far enough from being immaculate, is comparatively free. Accordingly, we find that the tenure on which the land is owned and tilled—that is, the average condition of the agricultural masses—decides the character of a people. It is true that the compact organization, the control of capital, the concentrated popular talent, the vigorous press, the agitable temperament of the large towns, give them an influence out of proportion to numbers; but this is far less the case in the United States than in most foreign countries where the land is held in large masses by a few powerful land-holders. Divided as it is in this country into small or moderate-sized farms, owned, for the most part, and tilled by a class of fairly educated, independent, and intelligent proprietors, the direct influence of large towns on the entire population is far less considerable than in Europe. Paris can at all times make a revolution in France: but not even your imperial metropolis could make a revolution in the United States. What the public character loses in concentration and energy by this want of metropolitan centralization, is more than gained by the country, in the virtuous mediocrity, the decent frugality, the healthfulness, the social tranquillity of private life.

EVIDENCES OF GOD'S INTERPOSING CARE ON THE FARM.

Speaking of the historian Hume, Mr. Everett says:

Did this philosopher ever contemplate the landscape at the close of the year, when seeds, and grains, and fruits have ripened, and stalks have withered and leaves have fallen, and winter has forced her icy curb even into the roaring jaws of Niagara, and sheeted half a continent in her glittering shroud, and all this teeming vegetation and organized life are locked in cold and marble obstruction; and, after week upon week and month upon month have swept with sleet, and chilly rain, and howling storm, over the earth, and riveted their bolts upon the door of nature's sepulchre;—when the sun at length begins to wheel in higher circles through the sky, and softer winds to breathe over melting snows,—did he ever behold the long hidden earth at length appear, and soon the timid grass peep forth, and anon the autumnal wheat begin to paint the field, and velvet leaflets to burst from purple buds, throughout the reviving forest; and the mellow soil to open its fruitful bosom to every grain and seed dropped from the planter's hand, buried but to spring up again, clothed with a new mysterious being; and then, as more fervid suns inflame the air, and softer showers distil from the clouds, and gentler dews string their pearls on twig and tendril, did he ever watch the ripening grain and fruit, pendent from stalk and vine, and tree; the meadow, the field, the pasture, the grove, each after its kind, arrayed in myriad-tinted garments, instinct with circulating life; seven millions of counted leaves on a single tree, each of which is a system whose exquisite complication puts to shame the shrewdest cunning of the human hand; every planted seed and grain, which had been loaned to the earth compounding its pious usury thirty, sixty, a hundred fold,—all harmoniously adapted to the sustenance of living nature,—the bread of a hungry world; here a tilled cornfield, whose yellow blades are nodding with the food of man; there an unplanted wilderness,—the great Father's farm,—where he "who hears the raven's cry" has cultivated with his own hand, his merciful crop of berries, and nuts, and acorns, and seeds, for the humbler families of animated nature—the solemn elephant, the browsing deer, the wild pigeon, whose fluttering caravan darkens the sky; the merry squirrel, who bounds from branch to branch, in the joy of his little life;—has he seen all this,—does he see it every year and month and day,—does he live, and move, and breathe, and think, in this atmosphere of wonder,—himself the greatest wonder of all, whose smallest fibre and faintest pulsation is as much a mystery as the blazing glories of Orion's belt,—and does he still maintain that a miracle is contrary to experience? If he has, and if he does, then let him go, in the name of Heaven, and say that it is contrary to experience, that the August Power which turns the clods of the earth into the daily bread of a thousand million souls could feed five thousand in the wilderness!

URINE.—Sir John Sinclair, speaking of the value of this fertilizing agent, says, "Every sort of

urine contains the essential elements of vegetables in a state of solution. The urine of a horse being so much lighter, would be more valuable than its dung, if both must be conveyed any considerable distance. The urine of six cows, or horses, will enrich a quantity of earth sufficient to top-dress one English acre of grass land; and as it would require about twenty dollars worth of dung to perform the same operation, the urine of a cow or horse is worth about three dollars per annum, allowing two dollars per acre as the expense of preparing the compost. The advantages of irrigating grass lands with cow urine almost exceeds belief. Mr. Hardy, of Glasgow, who keeps a large dairy in that town, by using cow urine, cuts some small fields of grass *six times*; and the average of each cutting is fifteen inches in length." If this is all true, farmers should exert their utmost efforts to economize this substance, and apply it to their crops with great care. It is, undoubtedly, a most energetic and efficient fertilizer, and one which, we are inclined to think, has been allowed to run greatly to waste.

THE ALBANIAN MARSHES.

These marshes are a paradise for ornithologists. Wild fowl of every description rise in clouds on all sides out of shot; while the coots and small cormorants, conscious of safety, scarcely trouble themselves to move at the sound of a gun. Plovers of all kinds whistle around, and down at the sea are flocks of huge grotesque-looking pelicans, with a sprinkling of snow-white egrets. Slowly flapping over the reeds are innumerable marsh harriers; merlins, peregrines, and bright blue hen harriers dash along above, and high up in the air the great Egyptian vultures (seeming pure white as you look up at them from below) soar slowly round, or rise sluggishly from their feast on some carcass at your feet. Eagles are as numerous as hawks in a deer forest in Scotland; five different kinds (I am told—I am no ornithologist myself) are frequently seen. In the woods the great eagle owl (*stryx bubo*) is not uncommon; and there is no lack of four-footed animals—wild boar, roe deer, jackals, foxes and martin cats abound; occasionally a wolf is seen, though they more commonly keep to the hill-sides; and among the high mountains in the interior are bears, red deer and chamois.—*Fraser's Magazine.*

HOW TO MAKE LARD CANDLES.

MESSRS. EDITORS:—Having been the recipient of many favors through the columns of your invaluable publications, I propose, as far as in me lies, to cancel the obligations already incurred, and as the first installment I shall offer a receipt for making hard, durable and clear-burning candles of lard. The manufacture of lard candles is carried on to a considerable extent in some of the western States, particularly Wisconsin, and being monopolized by the few, has proved very lucrative. The following is the receipt in toto. To every 8 lbs. of lard, add one ounce nitric acid; and the manner of making is as follows: Having carefully weighed your lard, place it over a slow fire, or at least merely melt it; then add the acid, and mould the same as tallow, and you have a clear, beautiful candle.

In order to make them resemble bona-fide tallow candles, you have only to add a small proportion of pure beeswax. J. A. ROBINSON.

Belcher, N. Y. *Country Gentleman.*

EXTRACTS AND REPLIES.

HOW SHALL WE SPELL?

The firm of Nourse, Mason & Co., of Boston, have a world-wide reputation for their implements made for turning over and pulverizing the soil. But they have not yet succeeded in instructing the people, *all of them*, how to spell the name by which these implements are to be designated. I find even learned editors vary in this—and dictionary-makers have no standard authority. The witty Dr. Holmes says, there would be the same propriety in spelling the name of the animal that supplies nourishment for our babies, when their mothers fail to afford it, *c-o-u-g-h*, as in spelling the name of this implement *p-l-o-u-g-h*. But every one pronounces the two with the same terminating sound, *cow*, *plow*. Then why not so spell them? No good reason can be assigned but being led captive by *early prejudices* and *antiquated errors*.

November 16, 1857. REFORMER.

MUCK AS A TOP-DRESSING—MUCK IN BARN-YARDS—MANURES.

Do you think it will pay to spread muck on as a top-dressing for mowing? If so, when is the best time for putting it on, fall or spring? *(a.)*

Do you think it advisable to buy manures to raise crops to pay for a farm, when one has considerable interest money to pay? Or is it best to let the farm pay for itself without any stimulus? *(b.)*

Is cider pomace beneficial to apple trees? *(c.)*

Is it not better to use muck in barn-yards, &c., instead of loam? As I have a great quantity of that article, I wish to know the most profitable way to use it. *(d.)* K. A. C.

Uxbridge, Nov., 1857.

REMARKS.—*(a.)* On sandy loams especially, but on any lands that have been heavily cropped, muck that has been thrown out one or more years, and occasionally worked over to get it fine, affords an excellent top-dressing, even when not mingled with any other substance. We should advise to apply it, if it can be made convenient, as soon as possible, after the grass is cut in July or August; but at any rate, in the fall, in preference to the spring, so that it may have the benefit of the fall and winter rains and frosts in pulverizing and settling it down about the roots.

(b.) Purchasing manure is much like any other merchandising; if you are satisfied that you can increase your profits enough to pay the cost of the manure, then purchase. It will be prudent,

however, to begin in a small way, and where you do experiment, use the manure freely, keeping an exact account of costs, and then you will be able to settle the question for yourself. Try it.

(c.) When pomace is decomposed and mixed with loam or muck, it is said to be a good dressing for apple trees.

(d.) Muck is better than loam for the barn-yard, because it is a much greater absorbent. Fifty loads of good muck, spread in the yard where cattle lie as they usually do in our barn-yards, and where the droppings of the cattle cannot be carried off by rains, will be nearly as valuable as fifty loads of the heap from under the barn window,—provided the muck and droppings be once or twice plowed up or otherwise mixed.

—

HOW SHALL I RECLAIM SINKS OR BASINS IN OLD FIELDS?

Can you or any of your correspondents inform me how to reclaim sinks or basins in old fields? The alluvial soil deposited is a compost of clay with every variety of vegetation, and on which grow noxious weeds most luxuriantly, but corn will not come up; a chance stalk that comes up grows off rank for a few weeks, and then dies. I have raised and ridged, manured and limed, but have failed. Should not trouble you, but have a good many acres of land in that condition.

Sparta, 1857. A FARMER.

REMARKS.—We have had no experience with such lands, and must refer the subject to wiser heads.

—

LARGE TURKEYS.

I thought I would let you know what sort of turkeys we have in Worcester. We have one turkey, eighteen months old, which weighs *thirty-two* pounds, and is still growing. We have seven, five months old, whose weight is one hundred and five pounds. If any of your readers have larger ones, I should like to see them.

DAVID R. GATES.

New Worcester, Nov., 1857.

—

CREEPER HENS—CRANBERRIES.

Will some of your readers tell me where I can get the old-fashioned creeper hens? Also, where a man can be had competent to prepare the ground and plant one-quarter of an acre of cranberries? A SUBSCRIBER.

West Newton, 1857.

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MAPLE SUGAR.

Londonderry, Vt., has about 1300 inhabitants, and made, last spring, *thirty tons* of maple sugar.

November 16, 1857. S. PIERCE.

REMARKS.—We are glad of it, Mr. Pierce; you are a sensible and industrious people up there, and enjoying most of the sweets of life;—but this latter one we should be glad to enjoy with you.

For the New England Farmer.

AGRICULTURAL REPORTS.

The season for exhibitions having passed by, we may now begin to witness *on paper* what has sprung from these exhibitions. How few there are, who duly weigh the importance of these documents, when prepared. It is not enough to say that such and such a premium was awarded to A. B. or C. D. for his or her best, or second best animal on the field; but the report should so describe the characteristics of the animal or object as to distinguish it from all others, and teach those who are willing to learn, how to grow or produce others of like character. If not, what is gained by the exhibition? The same may be said of crops of every variety. Those who appoint persons to prepare reports, should have regard to the ability of those selected, and those who are selected should never engage in the duty, without a determination to produce something creditable to themselves, and useful for the community.

These observations have been brought to mind by the "introductory remarks," in the annual transactions of one of our County Societies, lately given to the public. While such vigilance is displayed and regarded as is therein contained, there will be little danger of wearing out by repetition. Whoever valued less the products of their orchards, because year after year they had brought forth fruit of the same character and quality?—On the contrary, a certain degree of sameness, gives an increased value to these products.

November 12, 1857.

REMARKS.—These suggestions are important at this juncture, when so many of our reports are in the course of preparation. Much devolves upon the Secretaries of societies in this particular, and they should insist upon such a report as will elucidate the subject upon which it treats—otherwise the report is not of so much value as the paper upon which it is printed.

For the New England Farmer.

SQUASHES.

I have never known the season when this vegetable was so luxuriant and abundant. I presume the extreme wet of the summer was favorable to their growth. If memory is right, insects, that is, the *striped beetle* and *stinking, black squash bug*—(I speak of them as they are usually called, not having a distinct recollection of Dr. Harris's scientific appellations)—were less numerous than usual. Probably, at the same time the moisture promoted the growth of the vines, it retarded the multiplication of the insects. I have been induced to speak of this vegetable, by the accounts of extraordinary products given us by a friend lately returned from California, who saw *four squashes*, the present season, in San Francisco, the united weight of which was *sixteen hundred pounds*. I have seen in the field of Mr. Merritt, S. Salem, on ten hills, *twenty squashes* weighing *twenty hundred pounds*. On the same farms, I was assured that there has been raised more than

one hundred tons of the marrow squash the present season, on about two acres of ground.

An inquiry has often been made, how is the purity of the squash preserved? I have never met more sensible remarks on this point, than the following, which I quote from a Report on Vegetable Products, about to appear, viz.: *The Transactions of the Essex County Society for* 1857.

"It is a mistake to infer that the seed of the squash is pure, because the squash itself has all the outward characteristics of purity. The crossing of varieties, as in the apple, pear and all our fruits, is not in the pulp, but in the seed; and were the squash vine like our trees, *perennial*, no matter how near other varieties might grow, the fruit would always be constant; but when we plant the seed, be it of squash, apple or pear, then the result of growing it in the vicinity of other varieties, at once shows itself in point of all degrees of purity, though the seed planted may all have come from one squash."

This doctrine may in some manner explain *the vexed question*, which I have often heard answered with great confidence on both sides. Will seeds taken from squashes yield pumpkins? or *vice versa*; will seeds taken from pumpkins yield squashes? I had supposed these vegetables to be as different in their nature, as are the African and the European, in the human family. Nevertheless, I have seen of these, individuals that awakened a strong suspicion of *juxtaposition* of parents before birth. If such erratic adventures happen in the human family, under the obligations of all conventional and moral propriety, much more may they be expected in the vegetable family, that recognizes no such obligations.

Stranger things than these have turned up even in Marblehead—the overflowing fountain of squash intelligence. ESSEX.

Nov. 14, 1857.

NEW BOOKS.

"SORGHO AND IMPHEE, the Chinese and African Sugar. A treatise upon their origin, varieties and culture; their value as a forage crop; and the manufacture of sugar, syrup, alcohol, wines, beer, cider, vinegar, starch and dye-stuffs; with a paper by Leonard May, Esq., of Caffraria, and a description of his patented process for crystalizing the Imphee. By HENRY S. OLCOTT. A. O. MOORE, Agricultural Book Publisher, (late C. M. Saxton & Co.,) N. Y."

Such is a title of this new work on the Chinese Sugar Cane, and the African Sugar Cane, which is also called "Imphee." Mr. Olcott seems to have explored every department of the subject, and perhaps has given all the information in relation to them which it is necessary to know in making further experiments. The book commences with an account of the cane in China, and then goes on with some minuteness through all the stages of planting, culture, harvesting, expressing its juices and obtaining the syrup or sugar. The writer has also introduced the opinions and experiments of many practical men in relation to it. Numerous diagrams and figures illustrate the subject, so that the whole is presented in a clear and comprehensive manner.

The book is printed on large type and good paper, and is a credit to the old agricultural publishing house from whence it is issued. All persons intending to cultivate either of these canes, or who desire to know more about them, may be benefited by a perusal of this work.

"ILLUSTRATED ANNUAL REGISTER, for 1858. With 130 Engravings. By J. J. THOMAS. Luther Tucker & Son, Albany, N. Y."

This is Number Four of the Register and is equal to any of its predecessors. It tells you how to build a cheap farm-house, or a complete country residence, how to protect and feed animals and bees, to build cellar walls and cisterns, about gardens, grapes, orchards, poultry, plowing, and indeed, almost every thing that the farmer ought to know. It costs but 25 cts., and the single article *on Ventilation* is worth more than that to any farmer who will read this. You never will regret it if you purchase it.

MANAGEMENT OF MILCH COWS.

As soon as the grass begins to fail in the fall, milch cows should be fed on warm slops, that they may not get a back set, and kept at night in a warm and comfortable stable. If the farmer prefers using hay, they should have all of it they will eat up clean, and each night and morning a feed of from four to six quarts of shorts, wet with about the same quantity of warm water. Or a more economical way is to feed them twice a day with about half a bushel of nice, clean, cut straw, mixed with about three gallons of warm water. They will then need no hay, and give an abundance of good rich milk. Corn is too heating for milch cows, and has too much of a tendency to fatten.

The stable should be thoroughly cleaned every morning after the cows are turned out, and littered with clean straw. When it is stormy, they should remain in the stable until the middle of the afternoon, then they should be turned out to get water. *Genesee Farmer.*

LARD AND RESIN FOR TOOLS.

"A penny saved is two-pence earned."

Take about three pounds of lard and one pound of resin. Melt them together in a basin or kettle, and rub over all iron or steel surfaces in danger of being rusted. It can be put on with a brush or piece of cloth, and wherever it is applied it most effectually keeps air and moisture away, and of course prevents rust. When knives and forks, or other household articles, liable to become rusted or spotted, are to be laid away, rub them over with this mixture, and they will come out bright and clean even years afterwards. The coating may be so thin as not to be perceived, and it will still be effectual. Let every one keep a dish of this preparation on hand. As it

does not spoil of itself, it may be kept ready mixed for months or years. *Mem.*—Fresh lard, containing no salt, should be used. Resin is a cheap article, and may be obtained almost anywhere for four to six cents per pound.—*American Agriculturist.*

For the New England Farmer.

SEED OF THE HUBBARD SQUASH.

WILL THE SYRUP OF THE CHINESE SUGAR CANE FERMENT?—BURNING THE SYRUP—SUGAR FROM IT.

MR. EDITOR:—About two years since, I introduced the Hubbard squash to public notice through the columns of your paper. Thereupon letters reached me from many quarters, asking for seed; I satisfied the demand in part with seed that was quite impure, as the parties were informed at the time, but soon found my spare stock exhausted, while still the letters came from the community of live farmers. I was therefore again compelled to resort to your columns, and beg of them to spare me, as on my life I had squeezed out the very last whole seed that could possibly be spared from a stock that had never anticipated such a "run," and was therefore very naturally obliged to "suspend." Last spring, after conning over that famous axiom in political economy, that in a healthy relation between the producer and consumer, the supply will always equal the demand, I resolved that as circumstances had fairly cornered me, and many looked to me as producer of the seed in question, that I would meet the relation fairly, and lay in store a good stock of as pure seed as could be produced. In this effort, I have been successful, and I would, therefore, take the liberty to call the attention of parties whom I was unable to supply, to an advertisement on another page of this paper.

A writer in an agricultural paper inquires whether the syrup obtained from the Chinese sugar cane will remain without fermentation. A year since, I made a small quantity of syrup, and have kept the same loosely corked in a glass bottle under circumstances favorable for fermentation, the warmth of a close room; immediately upon reading the question of the writer, I arose, tested the syrup remaining, and found in it not the slightest indication of fermentation. This syrup was prepared from the pith of the cane, having been reduced about eight-ninths, hardly to the consistency of common molasses.

Writers vary much in their opinions of the quality of the new molasses, rating it all the way from poor West India, to the best syrup in the market. That there is good ground for this difference of opinion, any one will be satisfied by testing the various samples exhibited at our agricultural fairs. At the Essex County Fair, four samples were exhibited, three of which were thicker than common molasses, of a darker color, and *bitter* taste; they had evidently been burnt in the process of manufacture, and no man on his conscience could rank them much higher than the poorest of sweet Cuba molasses. The fourth sample was of about the color of sugar-house molasses, and rather thinner, having been reduced about seven parts in eight; its quality was equal, or nearly equal to that of the best syrup of commerce, with a flavor reminding one of buckwheat cakes. We would advise, therefore, such of our farmer friends as have not as yet finished their experiments, to avoid reducing their sap below the consistency of quite thin molasses, for while this may safely be done by almost any one, to reduce it still more is attended with risk, and calls for the oversight of the experienced sugar-maker. We are told that this variety of the cane can be made to yield but a small proportion of crystalized sugar, as the sugar which it contains is mostly grape sugar, a variety which will not crystalize.

About three weeks since, two hills of cane, one a little more advanced towards ripening than the other, but neither of them having their seed advanced beyond the milk, were given to a friend to experiment with. In a few days, he brought me the result of his experiment, saying that he thought he must have made some mistake, as the product did not seem like molasses. On examination, I found a thick mass, of about the color of honey, too thick to run on the vessel being turned. I found on tasting, that it was nearly pure sugar, as nearly so as the molasses sugar which is sometimes found as a residuum in molasses casks. The peculiarity of the experiment was, that the party knew nothing of sugar-making either in theory or practice. As soon as the sap was expressed, without being strained, it was immediately boiled, and most of the scum removed. No alkali whatever was added, and consequently the sugar has quite an acid taste. From this fortunate accident, I think we may draw two inferences; that to obtain sugar from the Chinese sugar cane, an alkali is not necessary, and that the proportion of sugar in a given quantity of syrup is larger than opinions from learned sources have led us to expect. JAMES J. H. GREGORY.

Marblehead, Mass.

For the New England Farmer.

WOMAN A SLAVE IN HER OWN HOUSE.

The late Gov. Hill, of New Hampshire, in his *Family Visitor*, while remarking on the importance of improving, to the utmost, the character of our butter, gave as a reason for having it nicely prepared, that it had already been a component part of almost all our dishes. But the admixture of butter with farinaceous and other preparations is not the only violation of nature's simplicity. Sugar, molasses, lard, saleratus, eggs, and many more things might be named, are used in large quantities. The French are said to have no less than 685 dishes of which eggs form a part; and if we have, as yet, not quite so many, it can hardly be said of us that we are not fast coming up with them. But it seldom happens that our food is so simple as to contain but one foreign ingredient—whether eggs, butter or anything else. What were once the plainest, simplest dishes, are often quite compounded.

Time was—and that, too, within our own remembrance—when, in very large portions of our country, no housekeeper, in preparing raised bread, (and very little was used of any other kind,) made use of anything but the needful yeast or leven; not even common salt. Occasionally, it is true, through carelessness or neglect, the fermentation was allowed to proceed too far before the baking process commenced; and the result was a greater or less degree of acidity;

though this seldom happened once in a quarter of a year, and in some families almost never. But "times are altered." Bread, unsalted, would, in most places, be intolerable; nor would it, in many families, be regarded as fit to eat without saleratus. Besides these, our farmers' wives, who have plenty of milk, frequently wet their meal with it; and in making several kinds of bread, they add to all these molasses. I have even, in some places at the South and South-west, seen bread to which a small quantity of flesh meat, finely chopped, had been added. It was called crackley bread.

Just think of this, Mr. Editor, for a moment. Here, in the more common forms of what is justly called the staff of life, are flour, salt, saleratus, molasses and milk, to say nothing of the substance which is usually added as a ferment, or of the acetic acid, which, in order to prepare the way for the saleratus, as well as to have a large loaf, is often developed before the bread is set in the oven! Including the last two, and we have an admixture of no less than seven ingredients, in order to the formation of what was once, and ever ought to have remained, a simple loaf of bread. And thus it seems to be, all the way from our most simple articles up to Mrs. Leslie's mince pies, composed of no less than eighteen ingredients! And then, let me say a word as to the quantity of these foreign ingredients. I can remember—perhaps you can—when from a quarter of a pound to a pound of saleratus or of pearl ash used to suffice for alkali a whole year, in any ordinary New England family. Or, if to this any additions were ever made, it consisted of a little ashes, neatly prepared by burning a few cobs of Indian corn. But now how stands the case? The mother and housekeeper of a well known family of Fitchburg told me a few years ago, in the presence of her husband, and after careful consultation with him, that she made use, in cooking, of no less than twenty-five pounds of saleratus in a year. And yet the family consisted only of ten persons—about one-half of whom were children. This, I admit, is an extreme case; at least I would fain hope so. Yet there are thousands of families of five, six or seven persons, that come nearly half way up to it—that is, they use at least ten or twelve pounds. Indeed, from much observation on this subject in different portions of the United States, I am of opinion that the average amount of this alkali which is used in cookery, can hardly be less than eight pounds. For should it be said that there are many indigent families who cannot afford it, my reply is that the poor are usually among the last to dispense with such a luxury as this. I speak of the past and present, however; for what will be done the coming winter, I do not attempt to predict.

Now, setting aside the fact of its bearing on health—for Dr. Dunglison says, in his Physiology, that "all *made* dishes are more or less rebellious" in the stomach—is it reasonable that woman should be condemned, for life, to a slavery to custom which demands of her that she should expend so much of her "sacred fire" in mixing natural, healthful and—to every unperverted palate—agreeable food with a multitude of foreign substances? For who does not know that it consumes a vast deal of time over and beyond what is needed in the preparation of the plainer viands?

It is not easy to estimate the amount of female time which is consumed in the United States every year, in the manner aforesaid; but it must be enormous. Perhaps we may form an idea of it, by considering for a moment how much time it requires to form cheese—a far less complicated mixture than many others. From the best data I have been able to obtain, it would take a woman a month to make a thousand pounds of cheese—I mean on the supposition that she could employ in this way her whole time. Yet who does not see, at once, that not only is nothing gained in this way, even of gustatory enjoyment, to the unperverted palate, but that the process is accompanied by some waste of nutritious matter and a good deal of vexation and fatigue? Those who have not reflected much on the subject, will, I know, interpose a question here: what should we farmers do with our milk at earlier seasons, if we did not make it into cheese?—a question, however, which, without pointing them to the kingdom of Brazil, and to some other countries, where butter and cheese have never yet been made, might easily be answered.

WM. A. ALCOTT.

Auburndale, Nov. 12th, 1857.

For the New England Farmer.

HEATED ROOMS.

Physiologists, one and all, agree that for health's sake, the breathing of pure air is of the utmost importance; say they, "Whatever makes the air impure, makes the blood impure, and from impurities of the blood originate nearly every disease, hence the sick person taking medicines, and at the same time breathing impure air, labors under the same disadvantage as the man, who, being afflicted with the gout, adopts a medical course of treatment, and at the same time indulges in luxurious living, which was the first and only cause of his disease; in either case, the former course may act as a curative, while the latter is sure to excite disease."

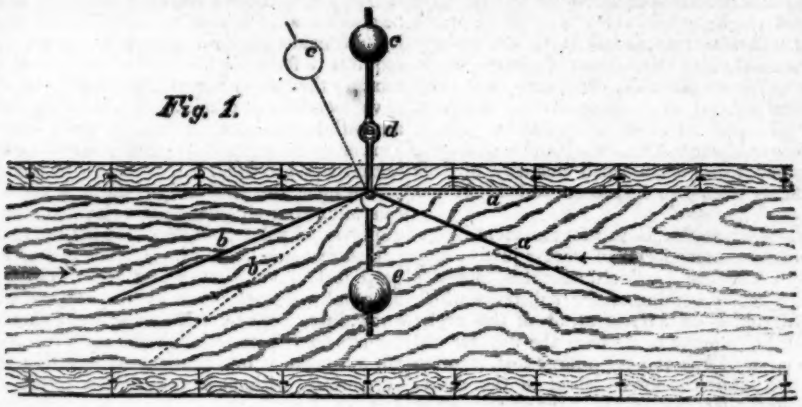
Now in regard to our dwellings, we pursue very much the same course; in winter, we shut up ourselves in small heated rooms in order to keep warm, forgetting that an ordinary man consumes a hogshead of air every hour, and that the stove takes up oxygen, the vital principle of air, twice as [illegible] man does; think of it, reader! a hogs[illegible]air for one person, and judge yourself or how many hogsheads capacity is your room, and how many persons there are to breathe therein. Still you pursue this course, and cough and croup the winter through, and are ready to believe that the human race is fast degenerating, or that the climate has undergone some sad change.

F.

"DIED POOR!"—As if anybody could die rich, and in that act of dying, did not loose the grasp upon title deed and bond, and go away a pauper out of time! No gold, no jewels, no lands or tenements. And yet, men have been buried by charity's hand, who did die rich; died worth a thousand thoughts of beauty, a thousand pleasant memories, a thousand hopes restored.

IMPROVED SUPPLY PIPE FOR HOT AIR FURNACES.

Fig. 1.



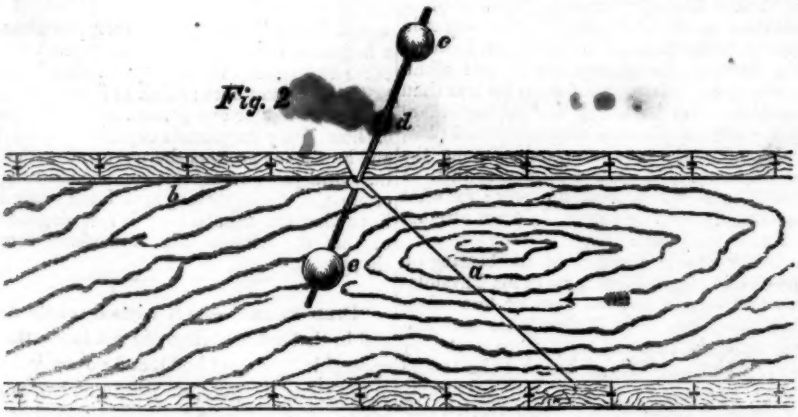
HON. SIMON BROWN:—*Dear Sir*—I send herewith cuts representing an invention by Mr. Samuel L. Hay and myself, by means of which a nearly uniform amount of fresh air is admitted through the supply pipes of furnaces, notwithstanding the tendency to increase of current from external cold, or winds. From the following table may be seen the great difference in speed between light and strong winds; and how irregular would be the supply, if the openings were always the same.

Velocity of the wind. Miles in an hour.	Perpendicular force on 1 square foot, in avoirdupois lbs.		Common appellations of the force of such winds.
1.....	.005	....	Hardly perceptible.
4.....	.079	....	Gentle, pleasant wind.
5.....	.123		
10.....	.492	....	Brisk gale.
15.....	1.107		
30.....	4.429	....	High wind.
35.....	6.027		
50.....	12.300	....	A storm.
80.....	31.490	....	A hurricane.
100.....	49.200		

Persons living in furnace-heated houses have experienced the discomfort from currents of air in cold weather, when the wind was blowing into the mouth of the supply pipe; and also an absence of heat from the furnace because of the wind blowing on an opposite side of the house from the supply pipes, producing a partial vacuum about the mouth of the pipe, causing a current of warm air to pass *out* of the house, and be lost.

The usual way of preventing the air from coming in too freely is to put a sliding valve into the pipe, by which the opening may be diminished; but the wind is fitful, gusts and lulls alternating, and the most careful watchfulness and personal attention cannot govern the supply. Some close these valves, and damp, unwholesome air is taken from the cellar. Others, after experiencing the inconvenience of regulating the current of fresh air through the supply pipe, have had them closed entirely and taken their supply from an opening through the hall floor; but this practice of making bad air by using it over and over again is depressing to the spirits and destructive to health. How often do we hear a person (wishing to be refreshed and "get an appetite,") remark,

Fig. 2



"I must go out and breathe the fresh air;" yet how few realize that they can have air almost as fresh and invigorating in their own dwellings, as in the open fields. It sometimes happens from the valve being closed to prevent the warm air from passing out, that heat has accumulated to

such a degree about the furnace, as to set on fire the wood-work. The self-acting regulator I think, will be understood by referring to the accompanying diagrams.

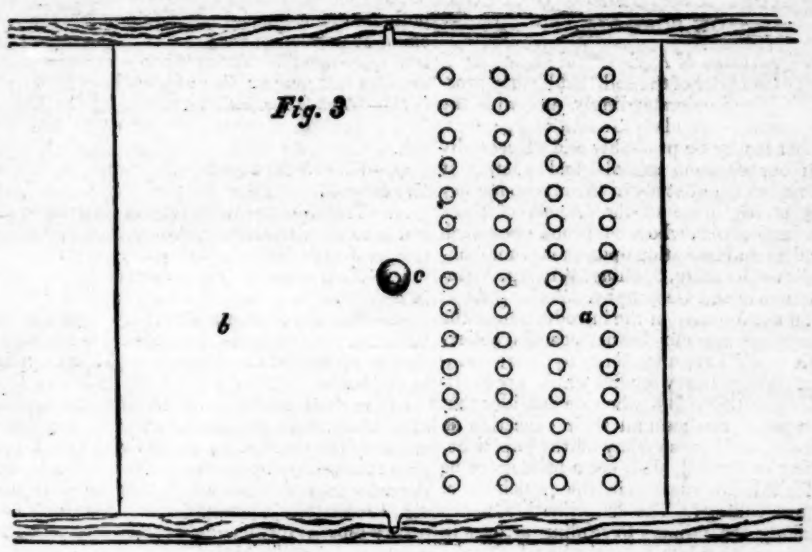
Fig. 1 is a vertical section through the regulator and supply pipe, showing the valve in its position when not affected by currents; the dotted lines representing its position when the inner wing, *b*, is closed by a refluent current, the weight, *e*, still hanging plumb. When the tendency to vacuum about the mouth of the pipe ceases, the current turns inward and the inner wing instantly opens.

Fig. 2 is a similar section, showing the position when the outer or perforated wing, *a*, is closed by the force of the inward current, the weight, *e*, preventing it from closing too freely, and tending to throw it up when the pressure diminishes.

Fig. 3 is a plan with the cover of the supply pipe removed.

The equipoise, *c*, can be adjusted by the joint, *d*, so that either wing can be made to proponderate; or so that if the weight, *e*, is removed and all currents, the regulator will be balanced, and remain in any position it may be placed in its bearings.

Mine has been operating a few weeks only, but sufficient to show that it is a very efficient and useful sentinel. There being a good fire in the



furnace, and the thermometer indicating about 32 degrees outside, the tendency to equilibrium produced a current through the supply pipe of about five miles per hour, (about seven feet per second,) and sufficient to close the outer wing of the regulator, as I had the weight, *e*, adjusted. In colder weather it would be much more, as the contrast between the external and internal air would be greater. In a mild day, when the temperature inside and out is nearly equal, there is hardly any perceptible current.

The regulator may be applied to chimneys, especially where coal is used, to prevent smoke and gas from blowing down, and to produce a uniform draught.

Very respectfully yours,

HENRY B. OSGOOD.

Whitinsville, Worcester Co., Nov. 23, 1857.

☞ A gentleman in Rockingham county, Va., has lost five head of young cattle, and two fine milch cows, within five days, by permitting them to run in the same field where he was feeding his hogs. The hogs ate the stalks of corn, and left them on the ground after chewing. These were taken up by the cattle, eaten, swallowed, and not being digestible, produced an itching all over. They at once commenced rubbing their heads, when their throats swelled, and in a short time, death ensued. So says a Virginia paper.

THE CUNNING OF THE RAVEN.

In the narrative of the Arctic Voyage of Capt. McClure, of the British Navy, is the following story of the two ravens, which became domiciliated on board the Investigator. The raven, it appears, is the only bird that willingly braves a Polar winter, and in the depth of the season he is seen to flit through the cold and sunless atmosphere like an evil spirit, his sullen croak alone breaking the silence of the death-like scene. No one of the crew attempted to shoot the ravens, and they consequently became very bold, as will be seen from the following story:

"Two ravens now established themselves as friends of the family in Mercer Bay, living mainly by what little scraps the men might have thrown away after meal times. The ship's dog, however, looked upon these as his especial perquisites, and exhibited considerable energy in maintaining his rights against the ravens, who nevertheless outwitted him in a way which amused every one. Observing that he appeared quite willing to make a mouthful of their own sable

persons, they used to throw themselves intentionally in his way, just as the mess-tins were being cleaned out on the dirt-heap outside the ship. The dog would immediately run at them, and they would just fly a few yards; the dog then made another run, and again they would appear to escape him but by an inch, and so on, until they had tempted and provoked him to the shore, a considerable distance off. Then the ravens would make a direct flight for the ship, and had generally done good execution before the mortified-looking dog detected the imposition that had been practised upon him, and rushed back again."

AGRICULTURE A STUDY FOR OUR COMMON SCHOOLS.

That a knowledge of Agricultural Chemistry is important to the tiller of the soil, that he may prosecute his calling understandingly and with the highest success, is too plain to admit of argument, but whether it may be profitably and successfully taught in our common schools, and whether it should be a branch of study in them, is an inquiry that may startle some of the friends of these good old institutions, who would look upon such a proposal as an innovation upon those time-honored studies of Reading, Spelling, Writing, Arithmetic, Grammar and Geography. As a general rule, we do not approve of the introduction of the higher branches into our district schools, believing that it would have a tendency to divert attention from those primary studies which appropriately belong to them. But when we consider that so large a population gain all their education in these schools, and that so many of the pupils become tillers of the soil, shall not a brief space be allotted for this instruction in the principles of their future calling? The disinclination which is felt among the farmers to reading articles in our journals which relate to agricultural chemistry arises from their ignorance of its first principles. If they do not understand the terms and laws of the science, reasoning founded upon them will always appear loose and confused, and it is only by implanting them early in the mind with the other rudiments of knowledge, that they may become familiar as the alphabet, and may be ready for use when needed.

It is true that our teachers as a class are now preparing to instruct in this department, and unacquainted as they are with it, they cannot bring forward those ready and common illustrations which not only assist the pupil, but secure his attention, and interest him in the study. Though teachers may not be required to pass an examination in this branch, yet let it be known that in winter schools, in our rural districts at least, it may be desired as a branch of study, and the supply will answer to the demand; teachers well qualified in other respects, will not hesitate to devote sufficient time to acquire a knowledge of this study. The greater ease of managing a school kept busy by some interesting study will fully compensate for all the extra trouble.

Happily we have not to wait for the preparation of a book adapted to the capacity of this class of scholars, and at the same time strictly correct and complete in its scientific detail. The "*Catechism of Agricultural Chemistry and Geology*," by the late Prof. Johnston, of Edinburgh, was dedicated to "the school-masters and teachers of Great Britain and Ireland," and has been extensively introduced into the schools of the United Kingdom. To the late Prof. Norton, of Yale College, we are indebted for an American edition, with an introduction prepared by him. The Superintendent of common schools in the State of New York recommends it highly for the use in all their schools. From long acquaintance with the work and from the interest we know is excited by its study, we most cordially advise all to form classes in it and and give it a trial, being well assured of the result. As it is a small book, the cost is trifling, and the time required of little moment, but as the author here exhibits the happy faculty both of condensing and symplifying without weakening or detracting from the subject, the treatise is very complete. The first three questions and answers will give an idea of the whole.

Q.—What is Agriculture.

A.—Agriculture is the art of cultivating the soil.

Q.—What is the object of the farmer in cultivating the soil.

A.—The object of the farmer in cultivating the soil is to raise the largest crops, at the smallest cost, and with the least injury to the land.

Q.—What ought the farmer especially to know, in order that he may attain this object?

A.—The farmer ought especially to know the nature of the crops he raises, of the land on which they grow, and of the manures which he applies to the land.

Crops, soils, manures, the rearing and feeding of animals, and the management of the dairy, make up the volume. Teachers who would prepare themselves for instruction in it, would find the more extended treatises by the same author, viz., "Johnston's Elements" and "Johnston's Lectures," most valuable aids, as also "Norton's Elements of Scientific Agriculture," a prize essay of the New York State Agricultural Society.—*Homestead.*

For the New England Farmer.

RURAL ECONOMY.

MR. EDITOR:—The day is rainy, and I have searched, as I always do on rainy days, for some essay or dissertation upon subjects connected with agriculture—some article giving the fundamental principles of action or of operation. I have looked through one volume of Skinner's *Old American Farmer*, and have found some interesting things—but I fail among them all, and among all other books and publications which I have looked through again and again, with the same object in view, to find any essay or dissertation treating agriculture as Foster treats decision of character, analyzing it, and enunciating its component parts, and presenting facts which one may study without weariness, and still learn something new; study which will teach him how one operation depends upon another in the great system of husbandry and of Rural Economy. There is, sir, a Rural Economy as well as a political Economy.

How is it to be analyzed?

How is it to be elucidated?

Would it be better practised if divided into distinct systems?

Its practice now presents a confused and jumbled mass of operations, without definite aims and endeavors. Is it the want of capital which makes farming so mixed and indefinite in its aims and ends?

Is it the possession of this which makes English farmers so successful?

Can you not then point to some carefully studied and written essay upon this important subject? or induce some man, like Josiah Quincy, senior, or the late S. W. Pomeroy, or the late Timothy Pickering, or the present Hon. J. W. Proctor, or others, to make the principles of Rural Economy more plain, and to tell us what is necessary in order that agriculture may be prosecuted as naturally and regularly, and with as much success as the operations of the mechanical world—some one who will show upon what great principles the Flemish husbandry is so successful, and the English tenant farmer pays his immense rents from year to year without even the idea of failure once entering his brain?

Will you not give attention to this matter, and gratify your anxious readers?

A CONSTANT READER AND SUBSCRIBER,
AND READER AND SUBSCRIBER TO EVERY OTHER JOURNAL.

November, 1857.

REMARKS.—We hope some person of ability and leisure will gratify our friend, and enlighten the waiting thousands who need the information asked for.

For the New England Farmer.

PATENT OFFICE REPORT FOR 1856.

MR. EDITOR:—At no time in the history of this country has there been so much scientific inquiry and interest manifested in agriculture and its kindred operations, as at the present time. I need not produce arguments to prove this—the most obtuse observer cannot but be convinced of it, from what he may witness constantly transpiring about him, whether he is actually engaged in carrying on a farm or engaged in other pursuits. The improvements in farm implements, the application of manures, rotation of crops, &c., &c., from year to year, all bear witness to this great fact. No less, also, is the fact manifested in the various publications, treatises, &c., which team from the press, relating to agriculture in its different departments; and while there is none the less science or talent displayed, they are more practical, more within the comprehension of the ordinary farming mind; and, therefore, these publications are more sought after and read. Compare the state of things in this respect, at the present day, with that of only ten, or even five years ago, and how striking the contrast! While at the former period, book-farming, so called, was looked upon with suspicion by most farmers, now nearly all, except the "Simon pure old fogy," is willing to acknowledge himself more or less a book farmer; and the man with only his single half acre, or acre farm, up to the thousand acre farmer, takes his agricultural paper, and considers his fireside incomplete without a few books relating to this most interesting branch of human industry, to refresh his mind and enlarge his ideas, as well as to instruct his household generally. At the same time, many of the latter have their tables loaded down with domestic and foreign weekly and monthly publications, and a library of books relating to agriculture in all its various departments, which would put to shame many a man in the learned professions. And all this brought about in comparatively a very few years, by the march of progress.

I have been led to these thoughts by looking over the last report of the Agricultural Department of the Patent Office, lately issued, a book of 536 pages and fifty plates. The plates, typography, &c., are among the best ever issued from the office. That of 1855 was far ahead of anything of the kind before; and this of 1856 is superior to that. It would take up too much of your valuable paper to name the different subjects treated of in this volume; they are those, however, most interesting to the great body of farmers, and the chief merit of all is, they are short, practical and to the point, upon a great variety of topics. I would go ten miles to see a bed of Peabody's New Hautbois Strawberry, as represented at Plate III. My desire is, in calling the attention of the readers of the *New England Farmer* to this volume, that they may secure a copy, feeling assured they will find much in it of great interest; and its suggestions, if followed, may be the basis of increasing the profits of the farm, and of rendering some of its operations more intelligent than heretofore.

From long and careful observation, I am well satisfied, all things being equal, the more *mind* that enters into the operations of the farm, the greater the profit. It is not every book or report written for the especial benefit of the farmer, that accomplishes its purpose. Either from the obscure manner in which it is written, its technicalities or some other equally great defects, such labors bear no fruit. None of these faults will be found in this book. As a model article, take for instance that written by the senior editor of the *Farmer*, under the head of FERTILIZERS, "*On the Value and Uses of Swamp Muck.*" Everything relating to the subject is plainly stated in simple, beautiful language, and directly to the point. "A fool need not err therein." That by Prof. Henry, "*Meteorology in its Connection with Agriculture,*" presents this science to the ordinary farming mind in language so simple, clear and interesting, as to command attention; and if carefully studied by the farmer, he will be enabled to see new beauties in the operations of nature, such as he never thought of before. So in regard to the other subjects treated of in this report.

Write to some member of Congress and get a copy while you may, and see if these things be so.

NORFOLK.

King Oak Hill, 1857.

REMARKS.—We would express our thanks to "Norfolk" for the expression of his favorable opinion on the article "*On the Value and Uses of Swamp Muck.*" That article was prepared by us expressly for the pages of the Patent Office Report. It was written in a plain, popular style, and every word and scientific term not in common use among our farmers, was studiously avoided

wherever it could be done without impairing the sense. The article was also divided into proper paragraphs, and each subject placed under its appropriate head, so that any definite part of it might be turned to and perused without going through the whole. These headings were as follows:

1. Where muck is mostly found.
2. Of what muck is composed, and how deposited.
3. Of the different qualities of muck.
4. How muck may be best obtained.
5. Some of the modes by which muck may be prepared for use.
6. Muck composted with barn manures.
7. Of muck composted with prepared bones.
8. Of muck composted with ashes.
9. Of muck composted with lime.
10. A compost of *salt*, lime and muck.
11. On what land muck is beneficial.
12. Quantity of muck per acre.
13. How and where muck should be applied.
14. Effects of muck on the soil.
15. Muck as an absorbent and deodorizer.

These, together with some collateral points, were discussed in the briefest and clearest manner consistent with the short time in which we were to present it. As it is presented now, however, it is a very different thing. Remarks which we thought due to the subject, if it were treated at all, have been omitted; all the headings, which were as so many marginal notes, have been suppressed, and with them two or three tables, showing the comparative value of the substance usually composted with muck. The whole article, also, has been crowded into a dense, uninviting mass, while others in the volume are unnecessarily expanded. We make no profession in writing to anything more than a plain, simple expression of our thoughts; but in the arrangement of matter when written, and in an appreciation of the popular wants, we will yield to few only, because a thorough training in a printing house, followed by a life of editorial duties and a watchfulness that has never tired, has given us means of judging which comparatively few possess.

A TIGHT PLACE.

When Col. Lee, of New York, was collecting subscriptions for the equestrian bronze statue of Washington, now standing a monument of patriotism and art at the corner of Union Park, he had occasion to visit an old curmudgeon in the neighborhood, and pulling out his subscription paper, requested him to add his name to the list. But old Lucre declined respectfully.

"I do not see," he said, "what benefit this statue will be to me; and five hundred dollars is a great deal of money to pay for the gratification of other people."

"Benefit to you?" replied the Colonel. "Why, sir, it will benefit you more than anybody else. This statue can be seen from every window of your house; it will be an ornament, and add dignity to the whole neighborhood, and it will perpetually remind you of the Father of his country—the immortal Washington!"

"Ah, Colonel," answered old Lucre, "I do not require a statue to remind me of him, for I always carry Washington here;" and he placed his hand on his heart.

"Then let me tell you," replied Col. Lee, "if that is so, all I have to say is, that you have got Washington in a very tight place!"

For the New England Farmer.

HARVESTING POP CORN.

MR. EDITOR:—Some months ago I penned a few remarks for the *Farmer*, in regard to the cultivation and uses of the common "pop-corn." I stated that it might be harvested as soon as it was out of the milk, and before the husks and leaves became dry, thereby adding much to the value of the *stover*, as food for cattle. A gentleman of Lexington, I think it was, wrote a reply, taking the ground that this, as well as all other kinds of corn, could not be perfect as cereal grain, unless it be allowed to ripen thoroughly on the stalk. My experience had been different; but I determined to try an experiment the present season that would leave no possible doubt in my own mind, on the subject. Accordingly, I harvested a portion of my crop the present season, (and, by the way, I only cultivate a small garden,) while the stalks and leaves were yet green, and the kernels only in the *sere*. Another portion I harvested when the ears had become thoroughly ripe, and the husks dry. Both kinds are now in fine popping order, and I must say that I find no perceptible difference in them. The early harvested portion is certainly not inferior to the other; while the value of its stover is at least double that of the later harvested portion. I apprehend that our New England farmers do not, as a general thing, appreciate the value of the corn crop as a cattle feeder, nor take proper pains to harvest it so as to obtain the highest value from the stover. A fair crop of corn, if harvested while the stalks are yet green, is fully equal to a ton of hay per acre, besides the value of the grain itself.

The pop-corn, besides its value as food for children, and its peculiar adaptation to the fattening of fowls, (on account of its larger proportion of oleaginous matter,) is an excellent cattle-feeder. The stalks have as large a portion, apparently, of saccharine matter as any other variety; and being small, cattle will eat them up nearly clean. What they lack in size may be compensated by the number of stalks in the hill, or by the nearness of the hill.

It may be worth a few moments' time to calculate the value of an acre of pop-corn, at the prices which our city residents pay for the article when fitted for their palates—that is, when parched and on sale by the grocers and candy men. Call it four cents a quart, and call a quart the product of a middle-sized ear. The corn may be planted, say three feet apart one way, by

eighteen inches the other. Allow, if you please, eight ears to the hill; which is not equal to the average of mine. Fifty hills to the square rod would be about eight thousand hills, or sixty-four thousand ears to the acre. This is only *two thousand five hundred and sixty dollars* per acre, for those to pay who eat the corn! Allowing that I have made the crop too large, and the price too high, take away half the amount, if you please, for every contingency which may be thought of, and we still have twelve hundred and eighty dollars, which the consumers pay for the product of an acre of ground; and who among them pretends to call pop-corn dear eating?

I do not make these remarks in the hope or expectation that farmers will go into the cultivation of pop-corn to the neglect of other crops; but I do think that, as a highly palatable, simple, and nutritious article of diet, especially for children, this corn is not sufficiently appreciated; and I take this mode of urging greater attention to the subject. E. C. P.

Somerville.

For the New England Farmer.

EXHIBITION OF MOWERS AND REAPERS,

BY THE U. S. AGRICULTURAL SOCIETY, AT SYRACUSE, N. Y., JULY, 1857.

BY A YANKEE DOODLE, WHO SAW IT.

We have come to Syracuse,
Mid this heated weather,
For to see the mowers mow,
And Reapers reap, together;
And if old Sol's burning glass
Don't in our own fat fry us,
We'll give our judgment on the work
Without a hair's breadth bias.
So bring your reapers on the ground,
And bring your mowers, too, Sir,
And let us Yankees show the world
A Yankee doodle *do*, Sir!

Here they come—creation! how
They sweep about the field, Sir—
Time may as well hang up his scythe,
And to their prowess yield, Sir;
Though he "cuts all, both great and small,"
And once his scythe went through, Sir,
A harvest worthy of his arm—
The field of Waterloo, Sir.
But no Yankee mower swept
Among that famous fight, Sir;
For if it had, I *rayther guess*,
You'd have seen a *different sight*, Sir!

Now, they've *processed* around the track—
The cannon roared its duty;
There you see the bright array,
The chivalry and beauty;
Farmer Wilder, from the stand—
A Gov'ner at each shoulder—
Speaks a speech that takes by storm
The heart of each beholder.
"And," says he, "bring right along
Your reapers and your mowers,
And we'll show how mighty quick
We can do up the *chores*."

Gov'ner King, he up and made
A short, but pithy talk, Sir—
And Gov'nor Morehead toed the mark
Made by the *union chalk*, Sir.
And then the people all hurrahed,
And clapped with hearty smackers,
Until you'd thought a fire had caught
Ten thousand India Crackers.
Which went to show, whatever else
In mowing might be done, Sir,
They couldn't cut the chain that binds
Our thirty States and one, Sir!

Marshal Taylor, on his horse,
With flowing yellow sash on,
Said "Forward, march!" and on they went
In military fashion:
And, as along the country road
The big machines did rattle,
One would have thought an army grand
Was going out to battle.
And so they were—but not to fight
And mash each other's face, Sir,
But, as the lawyers say, "submit
An amicable case," Sir.

And when they got upon the field,
As well you may suppose, sir,
The way those cutters clipped the grass
A *caution was to Mose*, Sir!
And as they *streaked* it o'er the land,
And set the odder free, Sir,
Old Time stood by with gloomy brow,
And sighed, "You've conquered me, Sir!"
So bring your mowers on the ground,
And bring your reapers, too, Sir,
And show the universal world,
What Yankee pluck can do, Sir!

Time hung his scythe upon a tree—
"Good-bye to you—you're *done*, Sir,
The poorest mower on the ground
The wreath from you hath won, Sir!
Henceforth I'll mow—as mow I must,
Among the grasses green, Sir,
And cut down all, both great and small,
With the best prize machine, Sir!"
Then, Yankee doodle keep it up,
The best invention going
Is that which beats the Reaper old
In reaping and in mowing.

HOW PEOPLE TAKE COLD.

The time for taking cold is after your exercise; the place is in your own house, or office, or counting-room.

It is not the act of exercise which gives the cold, but it is the getting cool too quick after exercising. For example: you walk very fast to go to the railroad station, or to the ferry, or to catch an omnibus, or to make time for an appointment; your mind being ahead of you, the body makes an over effort to keep up with it; and when you get to the desired spot you raise your hat and find yourself in a perspiration. You take a seat, and feeling quite comfortable as to temperature, you begin to talk with a friend, or to read a paper; and, before you are aware of it, you experience a sensation of chillness, and the thing is done.

You look around to see where the cold comes from, and find a window open near you, or a door, or that you have taken a seat at the forward part of the car, and, as it is moving against the wind, a strong draft is made through the crevices. Or, it may be, you meet a friend at the street corner, who wanted a loan, and was quite complimentary, almost loving; you did not like to be rude in the delivery of a two-lettered monosyllable, and while you were trying to be truthful, polite and

safe, all at the same time, on comes the chilly feeling from a raw wind at the street corner, or the slush of mud and water in which, for the first time, you notice yourself standing.

After any kind of exercise, do not stand a moment at a street corner for anybody or anything; nor at an open door or window. When you have been exercising in any way whatever, winter or summer, go home at once, or to some sheltered place; and, however warm the room may seem to be, do not at once pull off your hat and cloak, but wait some five minutes or more, and lay aside one at a time; thus acting, a cold is impossible. Notice a moment: when you return from a brisk walk and enter a warm room, raise your hat, and the forehead will be moist; let the hat remain a few moments and feel the forehead again, and it will be dry, showing that the room is actually cooler than your body, and that, with your outdoor clothing on, you have cooled off full soon.

Among the severest colds that I have known men to take, were those resulting from sitting down to a meal in a cool room after a walk; or being engaged in writing, and having let the fire go out, their first admonition of it was that creeping chillness, which is the forerunner of a severe cold. Persons have often lost their lives by writing or remaining in a room where there was no fire, although the weather outside was rather uncomfortable. Sleeping in rooms long unused, has destroyed the life of many a visitor and friend; our splendid parlors and our nice "spare rooms," help to enrich many a doctor. The cold sepulchral parlors of New York, from May till November, bring diseases, not only to visitors, but to the visited; for, coming from domestic occupations, or from the hurry of dressing, the heat of the body is higher than usual, and having no cloak or hat on in going to meet a visitor, and having in addition but little vitality, in consequence of the very sedentary nature of town life, there is very little capability of resistance, and a chill and cold is the result.—*Hall's Journal of Health.*

STORIES OF BIRDS.

To begin with the kingfisher. This bird has been well styled the only one which, in our islands, decks itself with a plumage of tropical richness and lustre. How rarely is it seen!—how shy of observation!—and how dazzlingly splendid when its green and crimson metallic *scales*, as one may call them, reflect the rays of the sun! I have seen this bird in an almost domesticated state—that is, I have seen it in a certain pleasure-ground remain on some old timber hanging over water, until we had come so near as to have a perfect view. It—or rather they, for there were several of them—ran about briskly while we approached, and then only seemed to retire a short way among the water-weeds. I am reminded here of an anecdote for which I can vouch, and which shows that the kingfisher has a remarkable tenacity of life.

One of these birds flew, one day, in some unaccountable way, into the open windows of a country-seat in Berkshire. It entered a drawing-room by one window, and dashed at another which happened to be shut. Of course it fell struggling to the ground, stunned, if not killed, by the shock. The ladies, who alone were present, summoned the butler to put the poor creature out of pain. This he did effectually, by "wringing its neck" in the ordinary way, and depositing it on a table, in order that its beauty might be admired by the whole family. Here it lay for some time, to all appearance quite dead; but at length some slight motion was perceived about its head—the head evidently was moving a little; and by and by this said head began slowly to turn round and round, which gyration was performed some five or six times, answering no doubt to the "wrings" inflicted by the ruthless hand of the butler aforesaid, until at last it seemed to have recovered its natural position. Thus it lay with open and glittering eyes for a short space; and then, as if instinct with new life, it made a sudden effort, flapped its wings, flew to the open window, and disappeared!

This recalls a somewhat similar instance of a partridge. This bird—an old cock I warrant him—was knocked over in the usual way in "stubbles and turnips." He was picked up while yet struggling, and his head severely knocked on the stock of a gun by one of the party. He was then "hung by the neck" with some others in a net by a leather strap contrived for the purpose. In this durance the poor animal remained during the rest of the day and the following night, being hung up with the bag in the gun-room. On the following day, when the keeper proceeded to hand over his prey to the cook, this bird was shaken out of his collar upon the table; whereupon he immediately got on his legs, looked about him, flew straight at the window, through a pane of which he broke his way, and escaped!

I will here mention an anecdote of another kind connected with birds, which has always struck me as most extraordinary.

I had obtained from the nest three young bullfinches, and had had them several days in perfect apparent health: they could feed alone, and seemed quite strong. One morning they seemed, in the very act of awaking, to be seized together with some sudden fit. They fell from the perches into the sand at the bottom of the cage, beating it about most violently with their wings, rolling over and over, and exhibiting the same appearance as wounded birds generally do. After perhaps two minutes of these extraordinary gambols, they all alike seemed to get rid of the exciting cause, whatever it was; they ceased to struggle; sat up languidly on their tails, steadying their panting bodies with their wings; and at length quite recovered their usual health. About ten days after, the same *simultaneous* seizure was repeated; they all fell down again, and struggled in the same way; but this time they died—*together*, of course.

I have often asked myself the question, what could have been the mysterious tie of sympathy between those singular birds? Had they each in turn died of some fit, it would have been a common death of the bullfinch tribe; but that the fit should have seized them *all* at the same moment, in the first instance harmless, and in the next with fatal results, remains a mystery to me to this day.

Talking of bullfinches and their fits, I may observe that apoplexy, their great enemy, may be averted for a long time, if not entirely, by avoiding the alderman's snare,—I mean, oleaginous feeding. Let them have canary-seed as a staple,

and an ample supply of *green food*—chickweed, groundsel, salids of all sorts, and fruit in the season; and *plethora* may be kept in check effectually. I would allow a grain or two of hemp-seed now and then from the master's or mistress's own fingers, but only seldom, and as rewards for good behavior.

EXTRACTS AND REPLIES.

A CURIOUS APPLE TREE.

In the garden of J. C. STEBBINS, of Charlestown, N. H., stands an apple tree that was grafted some fifteen years since, near the ground. It has now a straight, handsome body, some six or eight inches in diameter. It bears abundantly, but what is singular, a part of the apples are yellow Bellflowers, and a part English russetts.

All over the tree may be seen bellflowers and russetts growing upon the same limbs, often within a few inches of each other. I can account for the phenomenon in no other way, than by supposing the tree to have been cleft-grafted with two scions, one a bellflower and the other a russett. The tree being small, the scions came in contact and grew together. From this union the top is formed, and, as I stated above, bears two kinds of fruit upon the same branches. Should any doubt the story, the tree stands there, "a living witness!" J. R. W.

Springfield, Vt., Nov. 19, 1857.

GETTING TREES BY CUTTINGS.

I noticed in the *Farmer* of October 31, an "Inquiry about Fruit Trees," by an "Honest Farmer Boy," the substance of which was, "does it make any difference whether apple and pear cuttings, be planted in October or November, to procure fruit in five or six years?" In my opinion, it makes no difference in which month they are planted, or whether they are planted at all. I have been more or less engaged in propagating fruit and fruit-trees for several years past, and have tried many experiments with cuttings, without success. If pear and apple trees could be propagated by cuttings, nursery-men would have found it out ere this, and adopted the plan. Yet they raise their trees from seeds or by root-grafting. J. R. W.

THE CROW.

Most farmers hate the crow, and give as a reason that he pulls up the young corn, and that is the only substantial reason that can be given. For twenty years of my life, as a farmer, I think I never had a peck of corn destroyed by the crow. We may let our fields remain unprotected from our cattle and they will destroy our crops,—place a good fence about them and they are safe. I have always found it as easy to protect my fields of corn from the crow as from my cattle, by putting twine around the field. It is but a few days that he does us any damage at all, but he is always devouring that which will prevent disease. I think there is a generation wiser than this to come, that will impose a fine on any person that destroys the crow. My boys obtained a young crow last June which we completely tamed, and found that he would eat almost anything rather than corn in its dry state; and who ever saw a crow destroying our corn in the fall? My corn was where they could get what they pleased, but seldom if ever did they disturb it.

There is a singular circumstance respecting our crow; he seldom, if ever, left home unless some of the family went with him; but about the first of November, he suddenly disappeared; we supposed he was dead, killed by some evil-disposed person; but on Thursday, May 7, the first that met my eye in the morning on going to my barn was our crow, sitting on one of my maple trees. He appeared as glad to see me as I was to see him, rather shy at first, but in less than twenty-four hours the boys had their hands on him; on Saturday he went with us to the field and saw us plant corn, and soon became as tame as he was before he left. He was gone over six months, and then returned. Does the crow go South in cold weather? A SUBSCRIBER.

Ware, Mass.

REMARKS.—This communication was mislaid with some other papers, or it would have been published before. The crow is not, like the swallow, a migrating bird, but has its own locality where it probably passes its life. The crow, however has great power of wing, and often travels considerable distances in search of food, probably fifty miles at once in order to reach the seashore, or the margin of large rivers.

CARROTS.

The best crops of this vegetable I have seen the present season were grown by Daniel Buxton, Jr., of South Danvers, 16 tons, on a lot of 75 rods of land; and 15¼ tons on one-half an acre, by E. Brown, of Marblehead. Most of the crops in Essex county have fallen short of expectation nearly *one-third.* P.

November 19, 1857.

STOCKS FOR DWARF PEARS.

Is it generally known that the *Amelonchier Canadensis* is a good stock for dwarfing the pear? I know that it is so, and was induced to try it by reading Emerson's report on Woody Plants of Massachusetts, page 443. It is the shad bush or planting bush of the aborigines. S. T., JR.

Swampscott, Mass.

A FINE APPLE.

The large and very beautiful apple sent by Mr. CHARLES NEWCOMB, of Quincy, is new to us; it does not come up to the term of *best*, in flavor, but is far better than a great many varieties cultivated.

LAWTON BLACKBERRY.

J. A. F., of North Clarendon, Vt., will probably obtain the information he wants by consulting our advertising columns next March or April.

PROFITS OF SHEEP.

Will "P. J.," Randolph, Vermont, please send his whole address to A. Littlefield, Boston, who desires some communication with him on the subject?

CORN AMONG POTATOES.

The writer last season planted a plot of potatoes about the first of April, which grew finely, and received their final hoeing about the first of June. At this date my little son, unknown to me, went and planted a few hills of corn between the hills of potatoes. The potatoes were in drills some eighteen inches apart. At the time of digging, 25th of July, the corn was up some three feet high, and if there had been a sufficient amount of it, I should have left it to ripen. But wishing to use the land for a late crop of turnips, I cut the corn for fodder. But the random planting of the lad went far to convince me of a fact which I hope to profit by, and now communicate for the benefit of your subscribers, *i. e.*, that a crop of some quick growing corn —say the King Philip—may be grown after an early crop of potatoes, if planted immediately after the last hoeing of the potatoes, or about the first of June; care being taken at the digging not to molest the roots of the corn.

WM. J. PETTEE.

Lakeville, Conn., Dec. 3, 1857.

VERMIN ON CALVES AND SHEEP.

Can you or any of your correspondents inform me what is the best way to kill lice on calves and ticks on sheep, and oblige a farmer?

Tyson Furnace, 1857. A. H. HOSLEY.

REMARKS.—A careful application of some soft grease or oil, twice a week, continued two or three weeks, will generally destroy these vermin. It should be rubbed in with the hand, so as to oil the hair or wool. A little yellow snuff may be sprinkled in after the oil is applied. Clean wood ashes is also often used, but all such applications must be used with care. Preparations of mercury, such as unguentum, are used in desperate cases, but they are dangerous remedies, and their nature ought to be well understood by those who resort to them.

"J. B. N." communicates to us the following mode, and it is one we think quite well of, provided the animal is kept warm after the washing is done: "Take one-third soap and two-thirds water, and wash the animal all over at three different times, and it will kill all the lice."

VIEWING FARMS ENTIRE.

After much attention to the subject, I am confirmed in the belief that as much, or more, benefit may accrue to the farmer from such views, discreetly conducted by competent agents or committees, as in any other manner. I am not unmindful that different notions are entertained by some. I find in the report of the learned Secretary, upon the Agriculture of Massachusetts, in 1856, page 441, the following sentence: "from motives of delicacy gentlemen were frequently reluctant to communicate fully, when informed that facts so collected were intended for publication." I think the gentleman who penned this sentence was misled in his inferences, from the facts before him; for I have good reason to believe that many, very many of those who communicate to him facts, were as anxious that such facts should be made known to the public as he was to have them; and that what he construed as "motives of delicacy," were neither more nor less than a false pride or morbid sensitiveness. If there be any such, let them pass by, and call on those who have no such delicate misgivings.

ARATOR.

HOW TO CURE FOUL IN THE FOOT.

Mr. CHARLES ROBINSON, of Lexington, informs us that the application of a little oil of spike, *oleum nardenien*, about a tea-spoonful once a day to each foot, will effect a cure in one week. The claw should be opened, cleaned a little, and the oil turned in.

SHEEP HUSBANDRY.

I was recently made acquainted with a gentleman from Germany, who was desirious of renting a farm to introduce the keeping of sheep. I directed his attention to the county of Franklin, or the region thereabouts, as the best locality for this purpose in Massachusetts. There may be some farms in the hill towns of Worcester where sheep can be kept advantageously—but as a general thing, sheep flourish best where there are high hills, covered with a good coating of grass, and where lands can be had at a price not exceeding *twenty-five dollars* the acre. I have no doubt that a few sheep would be serviceable, on every considerable farm, even in the eastern counties of the State, but they will be kept to better advantage to the proprietor, where lands are cheaper, and dogs are not so plenty as they are in

Dec., 1857. MIDDLESEX AND ESSEX.

BLACK POLAND FOWLS.

Will some of your readers tell me where I can get pure breed Black Poland Fowls, the most useful as well as the most ornamental of all birds, and oblige AN OLD SUBSCRIBER.

Northfield, Mass., Nov., 1857.

GARGET IN COWS.

Can you inform me of a cure for gargety cows?

REMARKS.—A few drops of the tinture of *Aconite*, given upon a little wet corn meal, has proved effectual in many cases.

A FINE HOG.

Mr. JOHN G. SOLGER, of Plymouth, Vt., has just slaughtered a pig, eight months and four days old, which weighed 356 lbs., dressed. A.

For the New England Farmer.

GIRLS CAN TAKE CARE OF THEMSELVES.

MR. EDITOR:—I suspect "A Farmer's Son," in your paper of this date, (Vol. 12, No. 47,) is more *theoretical* than *practical*, in his sympathy for the girls of the household. The truth is, girls can take care of themselves, quite as well as boys, if they are only made to feel, when young, that they have got to do so. There are many honorable ways in which they can provide the means of living;—and if rightly directed by their moth-

ers, they will early have the energy and ability to take care of themselves. And if they manifest this, they will soon meet with help-mates, who will cheerfully lend all necessary aid. This bringing up girls to remain *a fixture* upon the homestead, is not the thing. It is neither agreeable to them, nor useful to the community; it is perverting the order of nature; and a misuse of the better part of creation.

Your young friend seems to think that the farm at home must be managed as it has been, in years gone by, yielding just enough to make both ends meet, with careful industry and economy. Let me tell him to have regard to the story of the man who left his treasure to his sons, buried within twelve inches of the surface, without specifying particularly the place where, and as soon as he was decently laid away under the sod, they started on a hunt to find the hidden treasure; and by the time they had been thoroughly over the entire surface, they began to learn the *mystery of the deposit*, and found no obstacle to *the removal of it*. The truth is, "where there is will, there is a way;" and girls will get along well enough, if they will but avoid being *misled* and *bewildered* by *foolish extravagancies*. *.

Nov. 21, 1857.

For the New England Farmer.

PROPORTION OF THE LEARNED PROFESSIONS.

Agricultural editors frequently treat the complaints and murmurings of the sons and daughters of farmers with indifference, sometimes with contempt. Not long since the conductors of "one of our city papers" acknowledged the receipt of a communication of this character, and, without publishing it, scornfully advised the writer to leave the business, if he did not know enough to make money by farming. I have been pleased to see that such articles are treated as respectfully by the editor of the *New England Farmer* as are those which paint in more lively colors the charms of rural life.

Being a farmer's son myself, I know there are two sides to the picture. Boys and girls who have been brought up to the stern realities of farming, and who are acquainted with other kinds of business mainly by their outside appearance, and that often seen from a distance, which ever lends more or less of enchantment to the view, are apt to regard other occupations as more intellectual, genteel and profitable, and less irksome and laborious, than farming. Such feelings, I believe, are very common, and are honestly entertained. With a strong conviction of their correctness, I left the farm in early boyhood, and have been engaged in another business for more than one-third of a century. My occupation, habits and circumstances have afforded opportunities of contrasting the lives and fortunes of men of various professions, that few have enjoyed. Brought up in a strictly agricultural section, and familiar with almost every phase of the farmer's life, I have worked in various cities and villages of six different States. Possibly a few hints and suggestions from my experience and observation may prove acceptable to some of the younger readers of the *Farmer*, whose ideas and feelings are expressed by the articles recently written by "E. H. S." and "A Farmer's Son."

Dissatisfaction belongs to human nature. Beasts and birds may be contented, but man never is. Whether on the farm, in the shop, the store or the office, troubles and miseries, or something just as good, abound; and it will probably be no hard task to find troubles enough in any occupation to make a respectable contrast with the "Miseries of Farming."

Before attempting, however, to classify or contrast the "miseries" of the various professions, we will recur to the article of "E. H. S." His first position is, that "farming has been unduly extolled," and his second, that "it is one of the most laborious occupations." We are willing to allow that he has good ground for both of these positions. Advocates of agriculture, as well as of law, no doubt, sometimes use a little "gloss or poetry" in their efforts to do their duty to their clients. All have heard of the man who acknowledged that he had no idea how shamefully he had been abused, until his lawyer made his plea. And some farmers may have been nearly as much surprised, on reading an agricultural oration or essay, to find what an easy, independent, profitable and glorious business they had been engaged in all their lives.

But when "E. H. S." represents the "curses" of labor as resting exclusively on the broad shoulders of farmers; when he presents intellectual pursuits in their most attractive forms as the alternative to agricultural drudgery, that breaks down the constitution and shortens life; when he asks, in so many words, "*Who would not rather prefer the enjoyment of an educated mind, than the narrow scope to which the farmer in general is confined*," we think he is guilty of using a "gloss" of the thickest kind, and "poetry" of the thinnest sort. Such sentiments are fuel for a fire, smouldering in the breast of Young America, more dangerous than that which heaves and rocks old Vesuvius. To get into a profession! To find some easy business! To live without work! Think of the multitudes of our young men who are indulging such aspirations, and then of the cold facts, for instance, of a census report.

By the compendium of the Census Returns for 1850, it appears that less than one in a hundred of the whole population of the United States, is returned as belonging to the "learned professions." And yet from all quarters comes the warning cry, that the "professions" are crowded to overflowing. Is it safe, then—is it honest—to talk to the "toiling millions who till the earth," of choosing between literary pursuits and physical labor?

By the Abstract of the Census of Boston for 1845, it appears that the employment of

250	females	and	224	males	contribute to	Education;
114	"	"	566	"	"	Health;
—	"	"	584	"	"	Justice;
206	"	"	920	"	"	Literature and fine arts.
—	"	"	104	"	"	Religion.

These are the only divisions in the table of occupations that have anything like a literary look. And if we examine a little more carefully into the details, we shall see much even here that appears much like work.

With the educated physicians, are counted not only "quacks," but nurses, sextons, truss-makers,

teeth-makers, druggists and apothecaries, &c., as contributing to health.

City and State officers of all ranks, and even "19 balance-makers," rank with lawyers and judges, as contributing to justice.

While in the "literature and fine art" line there are 80 female and 258 male printers; 116 female and 142 male book-binders, with any quantity of newsmen, instrument makers, stamp-cutters, type-makers, engravers, sculptors, &c. &c.

Hereafter, who will charge Boston "literature" with exclusiveness, or Boston "justice" with illiberality! Yet such were the means necessary, in 1845, to swell the list of the "literary class" in the Athens of America to the sum total of 2388, in a population of 114,366—a fraction over two of such *literati* for each one hundred of the whole population!

With proper deductions, then, for those in the above classes, whose labor is physical rather than intellectual, the result in Boston is very similar to that in the whole country—only one in a hundred can hope for "the enjoyment of a cultivated mind," unless such cultivation is possible with daily physical toil.

In another article we may have something to say of the opportunities for intellectual development which "E. H. S." and the women folks of "A Farmer's Son" will be likely to find in leaving the farm for some other vocation.

A CITY MECHANIC.

Boston, December, 1857.

STABLES—HORSES.

In the early autumn, when the soft sunlight was on the hills, and the valleys were teeming with the rich products of the harvest season, we indulged ourself somewhat in *country* rambles, in looking in upon the homes of the farmers, in storing up valuable opinions as they fell from their lips, and which they had formed by experiment or observation, during the active period of farm operations. But after the leaves had fallen, and wintry frost had laid its icy hand upon the flowers and herbage, we turned our rambles in another direction, and looked about Boston and vicinity to find matters which might be interesting and instructive to our readers.

Among other observations, we have often been struck with the abuse and want of proper treatment of that noble animal, the horse; we have visited stables in all sorts of out of the way corners, some built on made land, where, under the floor, was soft black mud, filled with all kinds of noxious exhalations, and abounding with vermin. Again we have seen forty or fifty horses crowded into a space that one of our farmers would think not large enough for ten; with no means of ventilation, and with the hot steam from the manure, &c,, making the atmosphere entirely unfit for any animal to breathe; in other places, we have seen valuable horses kept in little sheds or out-buildings which afforded little warmth, and exposed to severe storms, and many times in winter surrounded with snow and ice.

Having seen these things so many times, we were recently much pleased to have an opportunity of going over the stable of Messrs. PAGE, NOYES & Co., of Boston, for truck horses, and as we consider it as near perfect in its arrangements as it could well be, we will endeavor to give the reader a description of it.—It is in South Street, near the Old Colony depot, on a lot of land which affords them room for a large yard on each side of it. It is three stories high, and is seventy-two feet long by forty-one wide; the entrance from the street is by two large doors which slide up by means of weights and chains. The lower floor is devoted to the trucks and wagons which are all kept under cover, and, in order to occupy the space to the best advantage, lines of timber are laid down, which are plated with iron on the inside, and which are just wide enough to allow the wagons to stand between them, thus obliging the teamsters to arrange their teams in regular lines, and using every inch of space. On one side of the lower floor, is the scuttle through which the manure is put down, and which is boxed in perfectly tight, and ends at the roof in a large ventilator to carry off the steam from it. Over head we noticed long gutters to carry off the liquid manure, which is all conducted by these into the common sewer. The second floor, which is occupied by the horses, is worthy of attention. We ascended to it by means of a large inclined plane with an ascent quite easy for the horses. The floor is a curiosity in itself; it is made, first of a layer of boards, then two thicknesses of tarred felt, such as is used for ships' bottoms, then a thickness of a composition made for roofing, and next plank put on while the composition was hot, and then an upper covering of board. The stalls are arranged on each side of the building, fifteen on one side, each of which is four feet six inches wide by nine feet deep, and thirteen stalls on the other side, four feet wide by nine feet deep, with one stall for sick or lame horses, six feet wide; all of them are floored with thick plank above the other flooring. Behind the stalls is a groove cut in the floor, which receives all the liquids, and conveys them through holes to the gutters below. The open space or floor between the backs of the stalls is twenty-three feet wide, by seventy-one feet long, with windows at each end; in the middle of the floor overhead, is a scuttle about twelve feet wide, through which the light descends from a window in the roof of the same size. Along the whole centre of this story is a large beam which has hooks on it close to the ceiling, where each harness is hung directly behind the horse to which it belongs, and is high up as to be out

of the reach of the horses; so that if they should get loose, they could not pull them down and get entangled in them. Back of each horse are the curry-comb and brushes, and a rope which is passed across the back of the stall in the day, but not in the night time. At the end of the hall or space between the stalls, are the watering trough and bathing-tub for the horses, which are supplied with a Cochituate pipe.

The stalls themselves are made of inch and a half plank, and each feed trough is lined with zinc, and the edge plated with iron; the bars for the hay-rack are also of iron, and every part where the horse might gnaw or bite, is covered with zinc. The hay and meal are all kept in the story above, and the food is cut and mixed there, and then sent down to each stall through two shoots, one for the hay, and the other for the cut feed. The mixing trough is so arranged that the hay is cut and falls into it, and by raising a trap-door, as much or as little meal as is wanted runs into it, and a stream of water is let in from the other side.

On the same floor with the horses, is the extra harness room and place for the lanterns and other stable furniture. In front of each horse is a small hole or ventilator through the wall to allow bad air to escape, and in addition to these there are large ventilators on the roof, which allow all infected airs to pass off, so that the whole stable is as free from smell as a neat dwelling-house. The firm of truckmen to whom this stable belongs, does business in Milk, Pearl, and adjoining streets, and have from twenty-five to thirty as fine horses as are to be found in Boston, which are worthy of every care they bestow upon them. We have rarely been more forcibly struck with the truth of that sentence which declares that "a merciful man is merciful to his beast," than in looking over this finely arranged stable. We heartily commend this excellent example of Messrs. Page, Noyes & Co., to all who have the charge of horses.

For the New England Farmer.

THE NORTHEN SPY APPLE.

For the last ten or twelve years, no apple has excited so much interest among cultivators in New England, and been laid under so heavily for contributions of scions, as the Northern Spy. We ought now to have a liberal share of good fruit from these inoculations, but we see but little, and farmers seem as "shy" about speaking of it as is the reputation of the tree as a bearer.

At an Agricultural meeting at the State House, last winter, this apple was alluded to, when Mr. Hyde, of Newton, pronounced against it, and no one said anything in favor of it. The general objection is, that it is a poor bearer, and produced but little fair fruit, though the Messrs. Lake, of Topsfield, have thought differently. Mr. Hovey, in his *Magazine*, last spring, stated a new objection to it, which from various sources had come to his ears, viz: *dry rot*.

However, as it is far more agreeable to speak well of anything than otherwise, I wish to depose *(per contra)* that Mr. L. G. Horton, of Quincy, of this State, has presented me with four very fine specimens of this apple, and states that the largest and handsomest of this year's lot have been consumed, and that last year he raised some which his neighbors thought would not suffer from a comparison with those of New York. The scions were set in a healthy and vigorous bearing tree in 1850, and began to bear four years afterwards. There were only a few scions put in, and the product this season was about half a bushel. The specimens presented me weigh six ounces apiece, and are ten inches in circumference.

Mr. Horton states that his tree stands on an elevated dry soil, with a western aspect, and that the dry rot has effected the fruit to some extent, which corroborates the statement of Mr. Hovey, that a dry soil gives no exemption.

It seems to be quite certain that we can raise good Spies in our climate and soil; but if this new defect, the rot, continues, added to its sparse bearing habits, the Northern Spy must become a respectable outcast. D. W. I.

W. Medford, Nov., 1857.

For the New England Farmer

CATTLE SHOW NOTES.

On the 29th of October last, the Western Hampden Agricultural Society held their Show at Westfield. It was a cold, damp, drizzly day, but the thorough-bred farmers, and the famous *fat* and *working cattle*, of that section, were well represented. Few are the places that make as good a display under such weeping skies. Little rough Montgomery sent from her steep hills over thirty yokes of Herefords, most of them excellent in shape and drill. (Are not hilly towns better places to break cattle and horses than level ones?) An interesting, and I believe peculiar feature of this exhibition, is the weighing of cattle. I noticed many people gathered about the town *scales*, as yoke after yoke marched on. The owners appeared pleased; the judgment of the by-standers was improved. I do not know a more profitable attachment of Agricultural Shows, than this. *Platform scales* are the levelers of cattle society, as *common sense* is of human. There is no disputing their justice. There is no appeal from their decision. The extravagant boasting of the owners of mammoth stock is checked; the feeble hopes of the timid are raised. A few specimens of cows, colts, pigs and poultry completed the stock list. One venerable porker had fourteen of her children (out of a litter of nineteen) present, all fat, fair and forty pounds in weight.

The Hall next attracted my attention. Here was a good collection of vegetables, fruit, butter, bed-quilts, household goods, fancy work and pictures. Among the household manufactures were two pairs men's stockings, knit by an old lady over ninety-five years old. They looked very serviceable and comfortable. Is it not strange that these homely but useful articles should receive

so little attention, from the present generation of feminines? There are probably twenty embroidered skirts and collars exhibited to one pair of stockings. We need to *reform*, as well as *retrench*. Ornament can never take the place of use, much less with safety precede it.

At 2 P. M. I listened to an address from M. B. Whitney, Esq., in the old Congregational church. His subject was, "The progress and demands of Agriculture." He traced the progress of this art, from Eden to Massachusetts, and from the days of Adam, down to that of the Fowlers and Taylors, of *fat cattle notoriety* in Westfield. He affirmed agriculture to be the pioneer of civilization, and the farmer to be the equal of any class in the world. He ridiculed the idea that there was any "dignity in labor." Mind dignifies labor. Physical strength, said he, is not the only requisite of a farmer. Agriculture can make no progress without science. Agricultural schools are as neccessary for girls as boys. Because there are no fixed rules in farming, rigid, systematic experiment should be the basis of all advice. Few farmers can tell the cost of raising stock, grain, &c. Such ignorance would bankrupt any other profession in the world, and yet farmers are little harmed by the present financial storm.

In concluding, he exhorted the farmers to rise to higher efforts, and to awake to their rights and duties. The whole address was replete with passages of beauty and sound common sense. It was well delivered, and listened to, and the youthful orator must have won golden opinions from most of his audience. We came away, with a higher regard for the farmer's vocation, and an inward resolve to do something for the great cause of agriculture. J. N. BAGG.

West Springfield, Nov. 14, 1857.

For the New England Farmer.

MANAGEMENT OF YOUNG COLTS.

MR. EDITOR:—I have not raised a great many colts, but think I know how they should be managed, while young and growing. I will say to Mr. Gray, of Brattleboro', Vt., that if I had a colt one year old that bid fair to make a horse worth one, two or five hundred dollars, I would give him a stable at night ten feet square, by himself, keep it well littered with sawdust, fine shavings or straw. I would not have him stand on anything wet, and would feed him all the hay, (good clean hay,) that he would eat, and feed him something besides every day; say carrots cut up fine, with a little Indian meal mixed with them, or a quart or two of oats, well soaked. If carrots are not at hand, potatoes will do. If I intended to keep him for my own use, I would teach him to eat almost everything, such as sour milk, good hog swill and pumpkins. I would not *break* him to do all these; but I would teach him, caress him, make him think, if possible, that I was his best *friend*.

Colts want exercise, and should have a warm yard to run in all the pleasant days, but *not in the mud*, or with horned cattle. A blanket is seldom necessary.

Mr. Gray inquires: "when should he be broke?" I say never, *never!* Teach him as much as you can, but don't *break* him! that is all out of fashion. Teach him to do as you tell him, to come and go at your will; make a particular friend of him, and you may use him at any age you please, but be careful not to use him hard or badly. Cattle may be used at the age of two years, as well as boys at seven or eight; and when he is two, three or four years old, a few days before you wish to use him, put on the hames, put him in the thills, and let him stand several hours; stay by him, fondle him all over, lead him about and call him some name. Do this for a few days, and the first time you hitch him to a buggy, he will go as you tell him. When he will go well before a carriage, then put on the martingales, and a check, if he does not carry his head to please; by degress draw his head as you wish to have him carry it, and in a short time it will become a habit that can easily be retained. The time was, and is *now*, in some places, when every one thought a colt must be bitted; that is, put a great strong bit in his mouth, and draw his head into the breast, and have him throw himself down, while a cart whip was lacerating his sides, all of which is just the thing to spoil a colt. I say never bit or *break* a colt, nor burn the hampers. G. V.

Plainfield, Mass., 1857.

For the New England Farmer.

SWITZERLAND.

LETTER FROM MR. FRENCH.

MY DEAR BROWN:—From Lucerne, where you last had accounts of me, we went by rail and diligence to Berne, about one hundred miles. Berne is said to mean *bear*, in some language or other, and a bear forms the armorial *bear*ings, (excuse the pun, unperceived until the word was written,) of the city; and to keep up the idea, six live bears are kept at the city's expense in a stone den, built at considerable cost outside the gates, and figures of bears, carved in wood, formed in plaster and cast in iron, abound in all the shops. At one of the numerous fountains which embellish the city, a huge iron bear reposes at each corner, and as I passed in the morning, some little girls were amusing themselves by washing the bears' feet. The town clock is reckoned a great curiosity. We went to see it strike, and saw the figures of bears which decorate it, wag their heads. There is also a figure of a King, who opens his mouth, and a cock that crows when the clock strikes twelve.

The city is built in a manner quite peculiar, the sidewalks being under arches, the houses projecting overhead, so that you may go over the whole city in any weather unexposed to rain or sun, except in crossing the streets. Seeing a notice of an "Exposition of Industry," we embraced the opportunity to see something of the mechanical skill of the Swiss. We found the exhibition arranged with much taste, and of a character to do credit to any country. There were iron castings

equal to the best I have ever seen, wood carving superior to any that can be shown in any other country, I presume, a loom in operation weaving beautiful figured ribbons, silks in all stages, from the cocoon to the finished fabric of most beautiful quality, linen and woolen cloths of all descriptions, and a thousand miscellaneous articles such as we find in our own exhibitions. I remember especially fire-arms of various patterns and elaborate finish; the Swiss, by the way, claiming to be the best rifle shots in the world.

A contrivance for a self-opening and self-closing door we thought worthy of the cutest Yankee invention. You walk towards the door, and before you can touch the handle, the door parts in the middle, and moves noiselessly back into the wall, and when you have passed through, closes as quietly behind you. It is arranged so that your weight on a platform overcomes a counterpoise which keeps the door closed. The agricultural implements are of a heavy and clumsy make, but not more so than those in use in England.

From Berne we went by diligence to Thun, about three hours' ride through a country thoroughly Swiss. The houses have the widely projecting roof, sometimes extending twelve feet beyond the eaves, and many good two-story houses have the barn under the same roof, and in some instances I notice two good houses and a large barn, all under one large roof. The barn is usually finished with lattice-work, so that you can see the hay, and the roofs are covered with tiles or thatch. The sides of the houses are covered often with shingles cut in semi-circles at the exposed end, which gives a very tasteful finish.

Great attention seems to be given by the Swiss to their manure heaps. Close by every farm house is a large square heap of manure, composed of whatever can be collected about the premises, and carefully laid up with straw like a cider-mill cheese. Whether these people have the ordinary sense of smell I do not know. At least I am sure they have not a very strong sense of propriety, whatever may be their appreciation of convenience; for this mixture of men, women and cattle under the same roof, with fortifications, strong ones, too, of manure heaps at the door, does not indicate great refinement.

In the summer many of the cows are taken on to the mountains to graze, and you may see, perched up almost to the clouds, small houses occupied by the butter and cheese makers in their season. The grass seems to grow to the very tops of the mountains here, and fields of grain are seen on hill-sides so steep, that it looks from below as if a man could not stand a moment on the declivity. Some of the highways are planted with trees and unfenced, while others are fenced with living hedges. We next stopped, after a steamboat sail of an hour, at Interlachen, a sort of nest between the snow-capped hills, where many English and American families spend their summers. We took a carriage here next morning and visited Lauterbrunnen and the Staubbach Falls, or Cascade of Dust, a very small stream which falls some nine hundred feet over a precipice, a sort of perpendicular mountain side. The effect is very fine, the water being divided by the fall into fine white spray, although the stream is very small, not larger apparently than might run through a nine inch ring. However, Americans must bear in mind in their travels, that water power is not so abundant abroad as at home, and if Niagaras do not roar, and Ontarios and Superiors do not roll in these little countries, we must be satisfied if they make the best use of their means. The common houses in this part o. Switzerland are built in a very singular style. They are constructed of squared timber, say six inches by ten, laid up like a log house, the walls being solid and the timber halved where it crosses at the corners. The timber is worked smooth and even, presenting a good surface, and the ends are left long towards the eaves and cut into large brackets in very pretty style, to support the roof. Over the principal door, across the whole front, are usually carved, in wood, inscriptions in large letters, occupying two or more lines. Our guide interpreted some of them, and we found they usually expressed the name of the owner and of the builder, with the date of erection, and an invocation of God's blessing on the house. Sometimes a short text of Scripture is added. Similar inscriptions I observed on some pieces of valuable furniture, in the form of a proverb, or the like. From Interlachen we took post horses and a guide to Kandersteg, seven hours, nobody here having any idea of miles. We passed round Lake Thun on a very picturesque road, between mountain and lake, and stopped at an inn to rest our horses. The driver went into the house and brought out a large loaf of wheat bread, nearly as large as a water-pail, and cutting it open, gave each of his horses half. I cut a slice off of one horse's share, and ate it, and found it the same that was furnished us. At Frutigen we stopped an hour. In front of the inn are a fountain and several troughs, in a public square. Here the women were at work; some washing clothes, others preparing vegetables for cooking. One sensible girl brought out a basket of potatoes, and set them under a spout and washed them with a broom. On our way we saw women carrying liquid manure strapped on to their backs, and applying it to cabbages, and others moving solid manure in the same way. Our guide says that a man's wages here is only about ten cents a day at farm labor, but I am not willing to endorse

the statement. There is, however, every indication of poverty. Beggars beset us at every step. Boys and girls, and even women, follow the carriage at every hill, holding out their hands and begging piteously, seeming to be thankful for any small coin.

I know not whether I have before spoken of the goitre, a horrible swelling of the glands of the neck, which seems to affect a large proportion of the people. It is a dreadful deformity, and I am told sometimes produces death by pressure on the organs of respiration.

After a glorious ride till nine in the evening, we arrived at Kendersteg, through magnificent mountain passes, and are now in the wildest place, I think, in all wild Switzerland; and here for the Sabbath day we propose to rest, preparatary to crossing the mountain pass. And with best wishes for you and yours, farewell.

Yours, &c., HENRY F. FRENCH.

For the New England Farmer.

FARMING IN NEW JERSEY.

MR. EDITOR:—Having a little space for writing, I thought to put a few ideas on paper and send them to you.

I left my home in the south part of Massachusetts on the 23d inst., *via* Fall River and New York, and arrived in New Jersey on the evening of the 24th. The sail from Fall River was interrupted by a thunder-storm, and a "right smart gale of wind," as an Ohio Dutchman would call it. The "Bay State" had to tie up at a Rhode Island wharf, until the roughest of the weather's sneezing was over. Then the sea had no little swelling and roaring, like Jordan and the lions. However, the Bay State is a pretty safe State, and our morning arrival at New York happened at 12 M.

Visiting some of the agricultural warehouses in *Gotham*, one cannot fail to observe the difference between them and agricultural warehouses in Boston.

In New York, the sales of fertilizers far outstrip the Boston trade. This suggests a thought. If, as is generally admitted, the soils of New York and New Jersey are so far superior to those of the New England States, without the aid of extra fertilizers, why should not the Boston trade show a greater record of sales, if the farmers of New England seek to supply the deficiencies of New England soils? The farmers and gardeners of New York and New Jersey find it to their profit to procure vast quantities of plaster, phosphate of lime, poudrette, &c., &c., for their soils, and then send their fruits and vegetables to supply our New England cities, at so cheap a rate as to press upon our New England producers. Are not the New England soils worth improving? Certainly, we must say, they are. And much of the soil of New England, now condemned as hopelessly sterile, is as good, naturally, as soils here, from which farmers and gardeners are making great profits by the sale of fruits, vegetables, and products of the dairy.

I am now writing from the village of Irvington, in Essex county, New Jersey. The soil of this vicinity is very peculiar. The subsoil has the redness of madder. Its adhesiveness in a rainy time shows the presence of alumina. There are similar lands in some parts of Bristol county, in Massachusetts. South of the village of Assonet, there are lots which receive the name of "*red ground*," and which present similar natural characteristics to much of the soil in this country. Yet one acre here is made to produce more than twenty or even fifty acres there. At the same time, these improved lands give a profit to the owners and cultivators, and a large profit, while they sell their products at a much lower figure than they will at any time command in the eastern markets. Much land in this vicinity, now used for farming purposes, is under so high a state of culture as to claim two or perhaps three hundred dollars per acre. While writing the last two sentences, two gentlemen have been discussing the value of a small tract of land, only used for farming, in this neighborhood, for which the price of not less than $400 per acre is named.

A very different system of cultivation, and o. soil improvement, has been pursued here, than ever obtained much favor in New England.

Mechanic arts have unquestionably received greater attention with the many, in the New England States, than here.

The agricultural implements, in the New York warehouses, are, as a whole, more coarse and clumsy than those made in Boston. They are also less substantial, and sell at a lower figure.

I would trace out these peculiarities some farther, but think I have "spun this yarn" long enough. So perhaps I will write you again from these regions, "in a few days."

Yours, very truly, C.

DEPRECIATION OF PROPERTY.—We hear of the case of a gentleman of this city who was appointed trustee of the estate of a deceased person, and guardian of some minors, and who thinking *safety* should be mainly consulted in the investment of the funds thus committed to him, sold off the stocks of various corporations belonging to the estate, and invested the proceeds in State and city securities where he was sure of six per cent. interest. The appraised value of this property was about $150,000 two years ago. The difference to-day between the market value of the stocks sold and the securities now held by the party, is no less than *forty thousand dollars*.

It is reported in financial circles that the personal estate of an opulent merchant who died in Boston less than four years ago, valued in 1854 at $1,800,000, and consisting mainly of railway shares and bonds, has shrunk so much during the two past years, that the depreciation is more than a *million of dollars*.

It is reported that the manufacturing stocks owned by a single family have depreciated more than a million dollars in value within two years. The personal property of many individuals has faded away during the present year "like dissolving views," and the surprise attending the change is similar in many respects to that which usually attends those novel exhibitions.—*Transcript.*

For the New England Farmer.

ON THE REALITY OF THE SCIENCE OF MEDICINE.

BY WILSON FLAGG.

Moliere wrote a comedy for the purpose of exposing the blunders of physicians, and the absurdity of some of their pretensions; but his comedy is no less severe upon the follies of patients than upon pedantry of practitioners. Some of his pleasantries are extremely amusing. "What do you intend, (says a female neighbor to a father,) sir, by having four doctors to your daughter? Is not one manslayer enough for one person?" Dr. Sanarelle answers, "Be silent, miss, four opinions are better than one, any day."

Lisette—Then you will not let the poor child die in peace, but must needs let the doctors worry her to death?

Doctor—Do you think these gentlemen will really put her to death?

Lisette—No doubt at all of that. The other day a friend of mine, by the best reasoning in the world, proved to me how a person of her acquaintance, who was thought to have died of a fever, died, on the contrary, of four doctors and two apothecaries.

Dr. Sanarelle—Hush! you will offend the gentlemen in attendance.

Lisette—Well, listen to me, sir. Our cat has just recovered from a fall she had from the top of the house into the street below. For three days she ate nothing, and all that time she could not stir a paw; but luckily for her, there are no cat-doctors here. If there had been, they would have bled and medicined her life out to a certainty."

The tables seemed to have been turned, since the time of Moliere; for at the present day those persons swallow the most medicine who doctor themselves without consulting a physician. This is proved by the well known fact that the quantity of medicine which is sold from the apothecaries' shops to supply the demands occasioned by the *recipes* of physicians, is not one-tenth part so great as that which is sold in the form of patent nostrums. A careful study of the history of medicine, notwithstanding all the pleasantries which have been uttered at its expense, would convince any intelligent person that the theory and practice of medicine is a true science, having its foundation in nature. It would likewise convince them that there is no more uncertainty in its results, than in the results of any other branch of human knowledge, if we except the mathematics and what are called the exact sciences.

The theory and practice of medicine very closely resembles the science of agriculture, in the practice of which, an experiment that has succeeded nineteen times consecutively, will perhaps fail on the twentieth trial. We may apply lime or any other specified material, successfully to nineteen different soils, with manifest advantage. When applied in the twentieth case, the soil is injured by it, and rendered unproductive, because its hidden ingredients were such as to require a fertilizer of a different character. The science of chemistry enables us to analyze a soil, and to determine by this analysis what kind of substances it requires to render it productive. Still, with all the light afforded us by chemistry, there is always some degree of uncertainty in the results of chemical applications to the soil. In the application of guano to the soil there is some danger of injuring the crop, because a great deal of experience and judgment is necessary to determine the precise quantity and the precise manner in which it should be applied.

A still greater amount of judgment, learning and experience is required for prescribing medicines successfully for different constitutions. Everything that is necessary to be done cannot be laid down in books, but must be left to the judgment of the physician. Consider then the importance of selecting one who has had the advantages of a complete education, to make amends for any natural deficiency of judgment which every man is liable to possess. It is evident from these circumstances, that a more comprehensive intellect is required for the successful practice of medicine, than for the attainment of distinction in the exact sciences. In chemistry it has been ascertained with perfect precision, how much of a certain kind of acid would be required to neutralize a given quantity of a certain alkali; but no rule of medicine could decide how much opium would be required to alleviate a spasm. This must in all cases be determined by the judgment of the physician. The chemist can proceed in all his operations by rule; the physician, though guided by certain laws, must prescribe, not by rule, but by judgment. It is this circumstance that causes so many people to doubt the reality of the whole medical science. We might for the same reasons deny the reality of the science of navigation. The best navigator in the world might by some accident, or by some error of calculation, run his vessel ashore and dash her to pieces upon the rocks, while at the same time and place an inferior navigator had carried his vessel into harbor. Should we on this account ever afterwards employ ignorant navigators to pilot our vessels? If we did so, we should follow the example of those who, having witnessed certain mistakes in the practice of educated physicians, resolve ever afterwards when they are sick, to place themselves in the hands of a quack.

Chemistry, to return to our parallel, can measure the exact amount of oxygen that must combine with a certain amount of hydrogen, to produce water. Indeed, nearly all its operations are certain and exact. A person, therefore, with a good memory, though possessed of an inferior share of judgment and comparison, might be a good chemist. If fever was the effect of an acid, and this acid could be measured, the physician might cure his patient, on chemical principles, by prescribing a definite portion of alkali. But the diseases of the human system cannot be managed by a simple rule; and on account of the different aspects they assume, under different circumstances, every remedy is uncertain. The physician must watch its effects, and modify his prescriptions according to certain changes in the aspect of the disease.

Hence we may account for the remark of Dr. Gregory, a celebrated English physician, that "nine-tenths of the practice of medicine consists of guess-work." Another celebrated man left the practice of physic, giving as a reason for his

conduct, that he was tired of guessing. But it is this very circumstance that elevates the science of medicine above the exact sciences, because it requires the highest exercise of the human intellect, while the exact sciences can be attained by a dunce who has a good technical memory. There is such a thing as enlightened "guess-work," which may be defined, *the exercise of the judgment in applying certain rules to uncertain cases.* The navigator is obliged to use a great deal of this guess-work; yet there can be no doubt that an intelligent and well educated navigator, with the aid of science, the compass and the barometer, would in the majority of cases guess more accurately than one who was ill educated and without these aids.

The effects of a stimulant or narcotic, or any other medicine, vary according to the susceptibility of the patient to its influence. A frequent and constant use of opium, of ardent spirits or cayenne pepper, may so harden one to their effects, as to enable one who is accustomed to the use of them to bear a dose without any apparent effect, which would destroy the life of another person. "This principle, (says Dr. Paris,) may be illustrated in a clear and forcible manner, by the different sensations which the same temperature will produce under different circumstances. In the road over the Andes, at about half way between the foot and the summit of the mountain, there is a cottage, at which the ascending and descending travellers meet. The former, who have just quitted the sultry valleys at the base, are so relaxed, that the sudden diminution of temperature produces in them the feeling of intense cold; while those who have just left the frozen summits of the mountain, are overcome with the sensation of extreme heat.

"But we need not climb the Andes for an illustration. If we plunge one hand into a basin of hot water and the other into one of cold water, and then mix the contents of each vessel, and replace both hands into the mixture, we should experience the sensation of heat and cold, at the same time by the same fluid."

The hand which had been in the hot water will feel cold, and that which had been in the cold water will feel warm. The physician is obliged to take all such circumstances into his calculation before he prescribes for his patient; a little false information given him by the attendants may lead to consequences which would be attributed to an error of judgment on the part of the physician. The public is not generally aware how frequently the reputation of a physician suffers, on account of the ignorance, carelessness or stupidity of the attendants of the patient.

Our common aliments may in certain states of the constitution act upon one as powerful stimulants. In an old volume of Medical Reports is recorded the case of a miner, who after remaining eight days without food, was killed by being placed on a warm bed and fed on chicken broth. There is no end to the influences to which we are constantly exposed, that serve to increase or diminish our susceptibility to the operation of medicines. All these circumstances involve the practice of physic in so much uncertainty, that the best intellect must be entirely devoted to the study and practice of it, to insure success. Voltaire, who excelled almost all men in the sagacity of his observations, remarked that "those men who are occupied in the restoration of health to other men, are, when honest, above all the great of the earth. They even partake of divinity. No man is more estimable than a physician, who having studied nature from his youth, knows the properties of the human system, the diseases that assail it, the remedies that will benefit or heal it, *who exercises his art with caution, and pays equal attention to the rich and the poor.*"

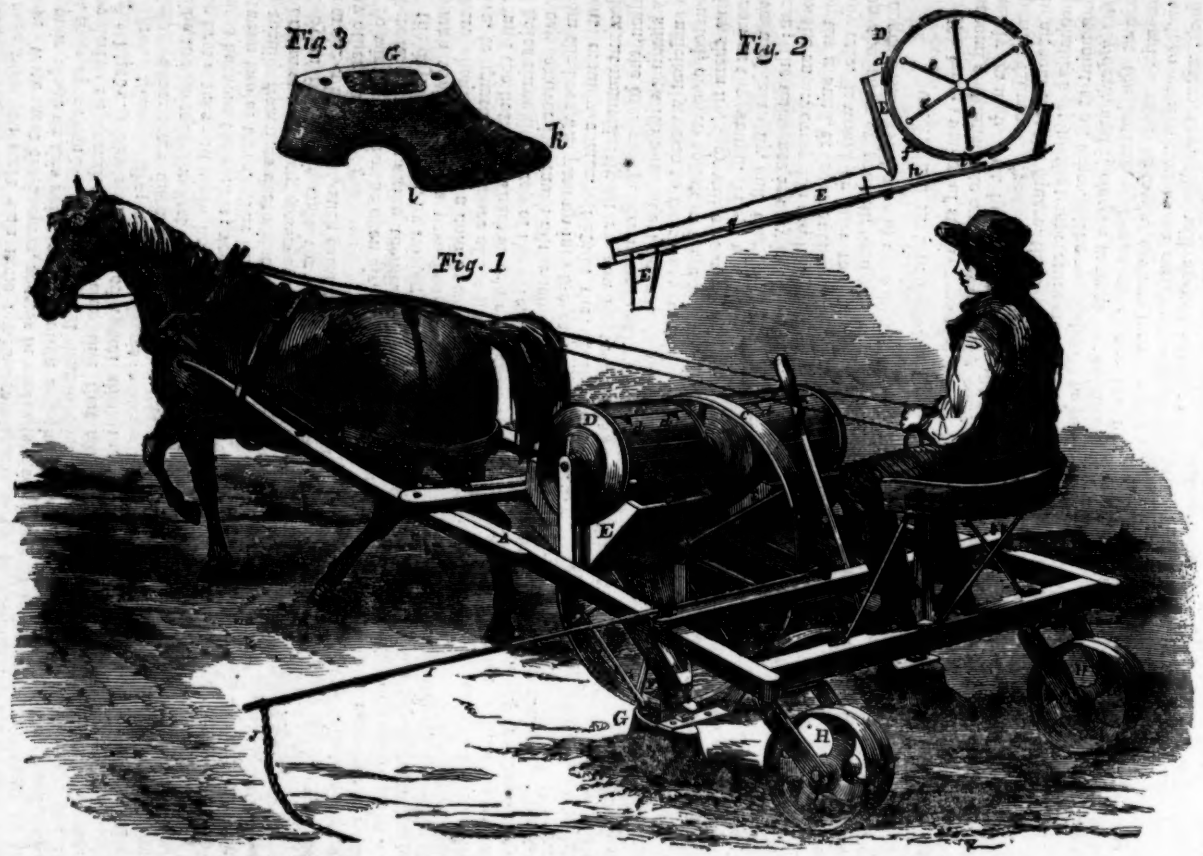
WILLARD'S PATENT SEED PLANTER.

This machine, the invention of Hosea Willard, Esq., of Vergennes, Vt., and for which letters patent were granted Oct. 6, 1857, is for planting all kinds of grain in drills or hills, covering and compressing at the same time. The grain is placed in the two cylinder holders, D D. These holders are made to revolve by means of the wheel E. In the inside of each holder is a reel, as seen in fig. 2, which is made to revolve in the opposite direction from the motion of the holders. Each holder is divided into two apartments, one to contain the grain, and the other to contain plaster or any other kind of fertilizer. The machine can be regulated to drop any given number of seeds, or amount of the fertilizer, into each hill, and to make the drills any distance apart that may be desired. The grain is covered by the shoe, as seen in fig. 3, and the drills compressed by the rollers, H H. It will be perceived that the coverer is so constructed as to render it impossible for large lumps or stones to get upon the grain. The position of the coverer can be regulated so as to make the drills as much below the surface, and to cover as deep or shallow, as may be desired. The dropping of the seed into each hill being directly in sight of the driver, it is impossible for any hill to escape being seeded without being observed by him, which is an advantage over all other machines. The chain, I, is to mark out a track to guide the driver, thus enabling him to make the drills all of the same distance apart. As will be seen the machine plants two rows at a time, and as much during a given time as a horse can walk over, from 15 to 25 acres per day.

The machine is now on exhibition at the Crystal Palace, and commands the attention of agriculturists in all sections of the country. It is examined by thousands every day.

The above Planter is manufactured by the Patentee, at Vergennes, Vt. Price of Planter, $30. Weight of machine, 230 pounds. County and State rights for sale at prices which will enable purchasers to realize very large profits. Apply to HOSEA WILLARD, Patentee, Vergennes, Vt.

☞ In Rockville, Ct., 1300 frogs have been found in a spring only four feet in diameter.



WILLARD'S PATENT SEED PLANTER.

For the New England Farmer.

WINTERING BEES.

For the benefit of those readers of the *Farmer* who may not be acquainted with my method of wintering bees, I will give a few directions. First, be sure that you start with none but first-rate stock. With most bee-keepers, success in winter depends alone on this point, as they often neglect their bees from fall till spring, and therefore they derive no benefit from any care that they might bestow. The requisites of a good stock are, first, a *strong* family; second, *sufficient* stores; third, freedom from disease of the brood. Examine the hives on the first really cool mornings. The best stocks will show bees in nearly all the spaces between the combs; very weak ones, only between two or three. The best families cannot be readily frozen to death, but weak ones may, and often are. Strong stocks are often smothered by an injudicious endeavor to protect them from the cold. In fact, such can hardly be lost in any other way.

To winter bees in the open air, choose a place where the sun can strike the hive, at least part of the day. Ventilate, by raising the hive just enough to let the bees pass, but not the mice. There should also be a hole in the side of the hive, to guard any chance of its getting closed around the bottom. There should also be several holes through the top of the hive, and an empty cap set over it; much of the moisture arising from the bees will pass up into the cap, and prevent mouldy combs. Should the weather be pleasant immediately after a new light snow has fallen, the bees may generally be kept in the hive by shading with a board set before it. If the air is sufficiently warm to melt snow that is old and crusted, or even soften it, there is no risk in letting them fly, they will rise as readily from the snow as the ground. There will be some few that are unable to fly, and will get down in either case; the difference is only in appearance; when on the snow, every one can be seen readily; when on the ground, it requires close observation. At any rate, it would be safer to lose half of them on the snow or ground, than to close the hive longer than a few hours at once during winter.

WINTERING IN THE HOUSE.

If a large number of stocks are to be wintered, second and third rate ones can often be carried safely through, that in the open air would be a perfect failure. There can be fifty or more packed in a room ten feet square, the combined warmth probably keeping the temperature above the freezing point at all times. The room should be *perfectly dark*, and if *close*, a passage for admitting air at the bottom, and another at the top for its exit, should be made, say two inches square, and so constructed as to *exclude* the light. A dark, warm, dry cellar, will answer equally well, without the passage for air, unless the bottom is clay or cement.

To get rid of the moisture that is constantly generated, the hives should be turned bottom upward upon shelves with blocks under to raise them an inch from the shelf, the holes in the top being left open to allow free circulation of air. By having several tiers of shelves one above another, a great many may be packed in one room. I have frequently put in two hundred stocks, on three tiers of shelves, in a room twelve by eighteen feet. A large number in a room is much better than a small one, on account of the additional warmth generated; and, if a room cannot be kept uniformly warm by the number of stocks, or by other means, leaving them out doors is preferable. To avoid keeping them in the house longer than necessary, it is well to let them have the advantage of all the pleasant weather likely to occur before housing. Put them in on the first really severe weather; the first snow storm, or, when *sure* that *winter has* commenced. Let them be disturbed as little as possible. Occasionally looking to them, to see that all is right, will not materially injure them. They may be put out the last of March, or first of April; choose the middle of a fair day, *when the air is warm*, no matter about the snow being gone, if it has only lain long enough to have a crust. A dozen or fifteen put out at a time, and in two hours as many more, is better than all at once.

This method of wintering bees is not merely theoretical, but the result of many year's experience. With the exception of two, over five hundred stocks were carried safely through the past winter, under this management. I find there is generally much reluctance to turning the hive over, and nothing to confine the bees. I have had letters of inquiry for additional assurance that I meant what I said. When this method is fully tested, I am persuaded it will be preferred to any other.

M. QUINBY,
Author of Mysteries of Bee-keeping Explained.

St. Johnsville, Montgomery Co., N. Y.

SUB-SOIL MAPS.

From the following, which we clip from the *Country Gentleman*, it will be seen that the French Government has employed a Mr. Duman, of Paris, to construct maps exhibiting the character of the sub-soil of the whole of France, to be accompanied with others of the geographical and geological features of the country. It is due to a citizen of Maryland, who for many years, and entirely at his own cost, has most industriously pursued the investigation of the qualities of the soil and sub-soil, to claim for him the credit of a method to which the French government attaches so much importance. Professor Baer, of Carroll Co., some fifteen years ago lectured before the Legislature of Maryland, with maps variously colored, to show the variations in the sub-soil, and has since been pursuing and perfecting his plans, and has now on hand a considerable collection of such maps, handsomely executed, and showing to the eye at a glance the character and variation of sub-soils, which have been the subjects of his investigations, as well as the remarkable effect upon the growth of plants of a sub-soil containing noxious elements underlying a genial surface soil. Professor Baer pursues the same method in teaching Chemistry, having large maps on which are displayed for instance the whole number of bases and acids, and the proportion in which they combine and their degrees of affinity indicated in such a way that the learner gets the lesson with remarkable facility.

SUB-SOIL MAPS.—We see it stated that Mr.

Duman, of Paris, has recently constructed, by order of government, a map exhibiting the nature and character of the sub-soil for the whole of France. It is designed to be used with, and to accompany another map descriptive of the geographical and geological features of the surface. The one exhibits with the greatest accuracy, all information pertaining to the surface, while the other reveals what lies immediately below the surface, thus affordiug indications of great value to the agriculturist, and to those searching for minerals or building materials. Similar maps for this country would be of the greatest importance to all who are in any way connected with the soil.—*American Farmer.*

For the New England Farmer.

WHITEWASHING TREES.

A communication with the aforesaid heading, from Peekskill, N. Y., was published in the *N. E. Farmer* of September, with the signature, "C. A. L.," taking exceptions to the editor's views on that subject. "Remarks" were added to the communication, stating that "our views are not materially changed by the statements of our correspondent." The same number contains an article with the heading, "Never Whitewash Trees." To this "C. A. L.," of "Berkshire," replies in the *N. E. Farmer*, (weekly,) of the 24th of October, with no slight exhibition of arrogance and conceit, the usual style of defence of such as feel conscious of having a bad cause to defend, seeming to forget, that stale witticisms, and personalities are poor substitutes for science, or anatomical and physiological facts.

Before proceeding to notice his misrepresentations of yourself, Mr. Editor,—for we both alike come under his censure and condemnation,—I desire to call attention to some of his statements made in the communications referred to:

"C. A. L.," *September.*

"You [alluding to the editor] compare the bark of a tree to the skin of an animal, and say that 'their functions are analogous.' I acknowledge the analogy in one respect, they are both on the *outside* of *the individual* (?) and that is the only resemblance between them. There is no office performed by the bark of a plant or tree which corresponds with that performed by the skin of animals; at least no such function has ever *been demonstrated to exist*, and it would be very easy to ascertain if it absorbed carbonic acid, or gave off oxygen. * * * You speak of 'filling the pores of the bark and thus effectually preventing the action of the atmosphere, and arresting the internal action also.' Now, as the *only function of the bark is protection*, and to some as a deposit of fibrin, no such injury can possibly result from covering the outside even with impenetrable varnish."

"C. A. L.," *October 24.*

"Both vegetable and animal bodies are subject to disease, as well as to the attacks of parasitic animals, and remedies and preventives or *prophylactic* measures are just as proper in the former, as in the latter case. *Conceding the bark of trees to be endowed with as important vital functions as the skin of man*, analogy would lead *us* to the conclusion, that as *local* applications are efficient remedies *in the one*, so also they would probably prove to be *in the other*. Sulphur, and lime and mercury, which are so destructive to *human parasites*, are no less so than to vegetables; [i. e. mercury is as sure to destroy *'human parasites'* as it is to kill vegetables] and the process of *whitewashing is no more unnatural* or *irrational* than applying sulphur or *mercurial ointments* to the epidermic coat of animals." [Not one whit more so; and that is enough to condemn whitewashing to eternal refutation.]

He says, "Your correspondent seems *ignorant* of the fact, that the 'stomata' or 'pores' of which he speaks, *are found* chiefly in the epidermic coat of the under surface of the leaves, and rarely found elsewhere." Does he? The communication referred to has the following language: Drs. Candolle and Hedwig, celebrated naturalists, demonstrated, that "the moisture required by the plant for its nourishment is received through the pores of the bark, of the stem, the branches, the fruit and the roots—*no less than through the stomata of the leaves*, and the open mouths of the spongioles." So much for the charge of "ignorance," concerning "stomata" or "pores."

He next charges your correspondent with "garbling the language of Schleiden," with reference to the function of the epidermis. This learned German botanist, describing the epidermis, says, "The cells of this layer are so firmly united that it may generally be stripped off the plant as a continuous membrane. It becomes clothed sooner or later with a layer of varying thickness, of a homogeneous substance, which receives beside, a thin coating of wax or resin; thus the enveloping membrane becomes impenetrable by fluids, and even repels them, since water runs off it as from a greasy substance. In certain places, however, [let the reader take particular notice,] *little orifices are left between the cells leading into the interior of the plant.*

"*In these orifices usually lie two crescent-shaped cells, having their concave sides applied together, so as to leave a slit open between them, but otherwise closing up the orifice. These slits, through which the plant communicates with the atmosphere, and expires gases and watery vapor, are opened wider, or contracted, as may be required. The orifices with crescentic cells are called stomates, and the whole layer in which they occur is the epidermis of the plant.*" (Pl. 1, Fig. 12.) See Poetry of the Vegetable World, Edited by Alphonso Wood, author of the "Class-Book of Botany;" —from the London edition, translated by A. Henfrey, F. L. S.—pp. 60–1.

As will be seen by comparison, "C. A. L." quotes from a paragraph marked by four periods. He copies the first, omits the second, copies the third, and omits the fourth. The paragraph is given entire above, in order that the reader may have the words of Schleiden on this subject, entire, as given by the translator, and settle the question as to the "guilt of garbling." "This writer," says "C. A. L.," meaning Schleiden, "represents the function of the stomata to be, to evaporate the superfluous water *absorbed by the spongioles.*" Indeed! How does it thus appear? The word spongiole is not mentioned by S. in connection with the function of the epidermis. And moreover, he admits here, what, in another part of his communication as quoted, he says, "Your correspondent seems ignorant that the 'stomata' or 'pores,' of which he speaks, *are found chiefly in the epidermic coat of the under surface of the leaves*, and are rarely found elsewhere." Notwithstanding the charge of this "seeming ignorance," before finishing the paragraph, he quotes S. to prove that the functions of the epidermis is performed through stomata.

"Stomata," says a French botanist, "exist in a more or less distinct manner in all the foliaceous surfaces of vascular plants—viz.: in the leaves, properly so called, in the stipules, *in the green bark*, in the calyx and pericarps which are not fleshy." In summing up on this subject, the aforesaid writer says,—"1st, that the customary use of the stomata is for perspiring water, which must be distinguished from simple evaporation;

2nd, that it is not impossible that they may also serve, in some cases, for absorption; 3d, that it is equally possible that they absorb water during the night."

Prof. Gray says, "Stomata or breathing-pores are orifices connected with a peculiar structure in the epidermis of leaves, and *other green parts.*" "Through these," he remarks, "the vapor of water and air can freely escape, *or enter*, as the case may be. The apple tree leaf, where they are under the average as to number, contains about 24,000 stomata to the square inch of its lower surface."

"The experiment alluded to, of placing a dried, shrunk and shrivelled plant in water, and its imbibing moisture, proves nothing in regard to the vital function of the epidermis of the bark of trees," says C. A. L.; "it is a phenomenon of *purely physical* endosmose." Strange that so learned a physiologist should have adduced this as a case in point. That absorption, as well as exhalation, is performed by the leaves [if by the stomata of the leaves, then why not of the bark?] of plants, is known to every farmer who has observed *the effects* of a heavy dew in reviving his wilted corn, but few are so *stupid* as to imagine that *this effect* has been produced by absorption *from the stalks!*" (??) The incongruities of this question are its best refutation.

Endosmose, as defined by Webster, signifies "The transmission of gaseous matter or vapors through membranes or porous substances inward." "*Purely physical* [not metaphysical!] endosmose is a phenomenon" that fully demonstrates and confirms the porosity of plants, according to C. A. L.'s own showing. So he confirms Drs. Candolle and Hedwig's experiment by endeavoring to overthrow it.

Hales, in his "Vegetable Staticks," gives among his numerous experiments the following:

"I took a cylinder of birch, ['impenetrable to the air,' says C. A. L.] with the bark on, 16 inches long and ¾ inch diameter, covered both ends with cement; also the old eyes where shoots had been cut off; and by the aid of the air-pump demonstrated that the air passed through the bark. The same was proved true of other kinds of wood."

Dr. Grew, a botanist, observes that "the pores are so large in the trunks of plants, as in the better sort of thick walking canes, they are visible to a good eye without a glass; but with a glass the cane seems as if it were stuck top-full of holes, with great pins, being so large as very well to resemble the pores of the skin in the end of the fingers and ball of the hand. In the leaves of pine they are likewise, through a glass, a very elegant show, standing almost exactly in rank and file through the length of the leaves." (Grew's Anatomy of Plants, p. 127.)

More authority bearing on the point under consideration, of the highest order, from Germany, France, and England, might be furnished, but what has been cited is deemed sufficient to establish the porous texture of the epidermis, or to show that it has stomata. This, moreover, is admitted by "C. A. L.," who, nevertheless, says in another place, "L. W." must not expect *me* nor *your readers* to receive his *ipse dixit* as to the functions of the epidermis, unless supported by some acknowledged authority; nor must he expect to escape by locating *stomata or pores in the bark*, instead of the leaves, and then applying to the former what is designed for the latter." This was no assertion of L. W., as the reader may see by referring to his article on page 438 of the September number of *N. E. Farmer*. It was there shown to be the doctrine of Drs. Candolle, Hedwig and Schleiden. So it was not "a tyro's" *ipse dixit*, and may give further occasion to show that a "tyro" cannot overthrow it, though he tug never so hard; and, when by study he comes to know really, as much as he would receive credit for now, he will not attempt it, for such folly could only be equalled by offering his head for a battering-ram; for facts serve as a more impenetrable wall of defence than any which encircled the besieged cities of olden time.

"L. W. would admit 'a little soap.' What! close the 'pores' with this viscid substance, which it is far more likely to do, than whitewash; and then how unnatural to wash trees with soap and water, as if they were dirty babies or coal-heavers!" Is it the tendency of the application of soap to "babies and coal-heavers" to stop the pores of the skin? If so, then it may have a similar effect upon the epidermis of trees when applied. L. W., by the way, did not recommend the use of soap.

Having further demonstrated the function of the bark, it goes further to confirm your position, Mr. Editor, together with that of your correspondent, that orchardists should never whitewash their fruit trees.

Your correspondent "L. W.," on page 430 of *N. E. Farmer*, Vol. 9., remarked in the first paragraph, that, "The orchardist should avoid all sorts of washes that leave a coating upon the bark, no matter what they are, nor what is claimed for them by charlatans or empirics." In the last, he says, "Dr. Harris and Mr. J. Buel may, in former times, have recommended whitewashing, but it was with reference to destroying insects, without reflecting upon the injury done the trees, or, perhaps, if so, in view of two evils, choose the less." In reply to these remarks, "C. A. L." says, "I hold that it is not empiricism to advocate the utility of whitewashing trees; L. W. may call the late Mr. Downing, Judge Buel, Dr. Harris, Dr. Fitch, &c., 'charlatans' for favoring this practice, but the reader will be at no great loss in determining who best deserves this title." As the question from L. W. fully exonerates him from the charge of his accuser, he entirely concurs in the concluding remark, that the reader will be at no great loss in deciding who deserves, nor in discovering who really wears "the title;" for "by their fruits shall ye know them."

To check the increase of bark-lice, Dr. Harris enumerates the following remedies: birds, internal parasites, minute ichneumon flies, whitewash, potash, or a pickle of salt and water.

A. J. Downing says, "The best wash for the stems and branches of fruit trees, is made by dissolving two pounds of *potash* in two gallons of water. This is applied with a brush—one, and at most, two applications, will rid the stem of trees of the bark-louse, and render it smooth and glossy. It is far more efficacious than whitewashing, as a preservative against the attacks of insects, while it promotes the growth of the tree, and adds to the natural, lively color of the bark."

So much for the condemnation of whitewashing, which gives the trees a repulsive appearance, very unlike that described by Downing.

Dr. Fitch remarking on the remedies for bark-lice, says, "infusion of quassia, tobacco or soap-suds will destroy newly-hatched lice. These and strong lye, potash-water, *whitewash*, dry ashes, sulphur, and I know not how many more articles, *have* been *recommended by different writers*. The *Michigan Farmer* gives a favorable account of the effects of tar and linseed oil beat together and applied warm with a brush, before the buds begin to expand in the spring. The remedy of Esq. Kimball, of Kenosha, is probably one of the most efficacious, and convenient of any; he boils leaf tobacco in strong lye, till it is reduced to an impalpable pulp—and then mixes it with soap, and applies it with a brush." Dr. Fitch does not seem to recommend whitewashing.

These are some of the remedies for the destruction of bark-lice, both natural, as birds and insects, and artificial as the various washes. Only one of these writers directly recommends whitewashing. With all due deference to the opinion of the late Dr. Harris, the whitewashing of fruit trees is becoming unpopular, and will soon be reckoned among the things that were. This is a cheering indication—one, among others, tending to show that improvement is going forth in what pertains to both agriculture and horticulture.

Before planting fruit trees, prepare the soil well by deep and thorough tillage—manure well, select good, healthful trees for transplanting—put lime into the soil,—but do not on the trees,—and with due care and attention, with the application of some simple, harmless wash, like pure water, your trees will grow, flourish and bear fruit in due time. L. W.

MAKE THE MANURE.

Now is the favorable time. The stock has done roaming in the pastures, is sheltered at night, and perhaps during the day, or is allowed, at most, only a part of the pleasant weather in the open yard. At any rate, it is so compact as to bring its droppings into a comparatively small space, where they can be easily collected and incorporated with other matter. How it shall best be kept from waste is a question of importance.

We cannot all have barn cellars just as we wish, nor all the materials we may like, to mingle with the fresh droppings. But much may be done to prevent waste when we have become fully convinced that *there is a depreciation in manure when it is neglected, and consequently a money loss to its owner*. To those who do not believe in loss by evaporation or drenching, our words are but idle utterings—but to those who entertain that belief, a few suggestions may be profitable.

There is no substance within our knowledge which is cheap and abundant, that will absorb and save the liquid portions of manure, and prevent the escape of ammonia, like the muck which is found all over New England, in swamps, meadows, and even in many valleys and uplands. When it has undergone fermentation, it greatly resembles pure cow dung, and the best of it is nearly as valuable as the cow dung itself. Most of our farmers have access to this, and we will therefore speak of it first.

Where there are trenches behind the cattle when tied up, it is a good plan to scatter dry muck two or three inches deep, so that it may receive the droppings while they are warm: in this way the muck takes up nearly all the fluid parts, and retains them until the whole is passed through the opening into the cellar, when the process of "cleaning out" mingles the mass more intimately. This, however, *is not enough*,—for when a considerable heap has been accumulated below, if nothing more is done, drainage and evaporation both take place; the gaseous parts speeding their way upwards, and the fluid soaking into the sand or gravel, which compose the bottom of the cellar, or flowing down some channel which they make, perhaps, by their own specific gravity.

Near by the dung-heap there should be a pile of dry and finely pulverized muck, and as often as every other day the droppings should be leveled a little, and then covered to the depth of an inch with muck. When this is carefully done, there will be little or no flavor from the stalls where the cattle are tied, or from the heaps themselves,—a pretty convincing evidence that there is no fermentation going on and no waste by evaporation. The eye must detect whether there is any loss by leaking or drainage. If there should be, a more liberal quantity of the muck must be supplied.

Under this treatment the manure heap will be kept compact and neat, nearly all its valuable properties retained, and when removed, will present a black, exceedingly rich and unctuous paste, that may be cut through with the shovel with ease. In this condition, if *one-half* of the mass is muck, we have no doubt the whole will be worth more per cord than an equal amount of the clear droppings under the ordinary neglect which it suffers.

If muck is not convenient, or cannot be obtained, use loam, or even pure sand.

Good muck, then, demands our first attention, but as all cannot well obtain it, they may avail themselves of other things worthy of especial attention. *Dried Leaves* are excellent, as they are not only valuable as an ingredient for manure, but serve an important purpose as litter or bedding for stock. They may be gathered on many farms at little expense, and will amply repay the cost of collecting and using them.

Sawdust is another article extensively used, and where horses are kept that are not at work,

a coat of this applied once or twice a day, and allowed to remain for weeks or months without disturbing the heap, will prove highly valuable. Much labor of cleaning out will be saved, and the horse will thrive better and his feet keep in a healthier condition than if standing on the dry, hard floor.

Spent tan is another article, and, if fine and old, will answer a better purpose than nothing.

But there are some farms where none of these can be cheaply obtained in quantity, and in such cases they have but one material to which they can resort, and that is the common *loam* of their fields. Where this is the case, we would recommend the same use of it as we have suggested for the meadow mud. On nearly every farm loam may be collected from the side of walls where it has been turned by frequent plowings and left in excess, becoming rather an injury to the farm than a benefit, by encouraging the growth of bushes or rank weeds; or it may be taken from balks or badly managed headlands, or in rich places in pastures or by the roadside. Men who are attentive to the acquisition of manure, this vital interest of the farm, will find a deposit somewhere, which will enable them to increase their winter heaps, and consequently their annual crops.

We cannot suggest anything to the farmer which will be of so much real service to him, as to induce him, if we can, *to give more attention to the saving and increasing his stock of manures.*

EXTRACTS AND REPLIES.

HAY CAPS.

Wishing to procure some hay-caps for another summer, I would like to inquire whether those made without any paint answer as good purpose? Will those who have given them a fair trial, state the result, with any other suggestions from their own experience, which may occur, as likely to benefit a tyro? WM. F. BASSETT.

Ashfield, Dec., 1857.

REMARKS.—We have used hap caps for several years, and have no more doubt about the *economy of such use* than we have about the economy of cutting the grass after it is grown, or of cocking it after it is cut. The abuse which has been heaped upon the use of hay-caps is like that bestowed upon keeping manure under cover, or of gradual deep plowing, and springs from those miserable prejudices which some cling to as to life itself. Some of these persons stoutly aver that a piece of cotton cloth is no sort of protection to hay, that it will become wet through in a few moments, and yet they may be seen plodding about with an old cotton umbrella over them for hours together, with their heads as innocent of rain as they are of fairness and observation. There are few men but have had an opportunity of *seeing the effects of hay-caps with their own eyes*, if they would but open them and look. A set of thirty hay-caps will more than pay for themselves in a single summer such as the last was, on a farm where twenty tons of hay is cut.

An excellent hay-cap may be made of *four* yards of twilled cotton cloth, a yard wide, by sewing two breadths together, which will give a cap six feet square, and that is sufficiently large to be handled comfortably. They should be well hemmed, and each corner turned over about one inch and sewed down; into these twine should be tied to form loops for the pegs. The pegs may be made of white pine, and should be at least fifteen inches long, and whittled out smooth and sharp at one end.

Such caps need no paint, and when placed on a cock of hay that is made up tall and peaked at the top, and the side well raked down, will almost entirely protect it from a rain-storm of three or four days; and we have known hay and grain kept quite dry with such a cap, when the storm had continued for *seven* days!

We have little sympathy with those who rail against the introduction of everything brought upon the farm, that was *not there* fifty years ago; but we have considerable for the animals under their care who are to subsist upon their fodder. "I object!" seems to be as natural to some persons as the breath of their nostrils; they do not stop to investigate, but as they *feel like objecting*, out it comes, "I object!"

Well, every weed, however useless it may seem to us, undoubtedly *has* its use, and serves some good purpose, though it may be hidden from our view—and these objectors may stand in the same category—so we will try to believe that some valuable lesson may be drawn from their *objections*, and exert ourselves to find out what it is.

We hope the arguments *against* the use of hay-caps will be urged upon our correspondent, as well as those in favor of them.

FEEDING STOCK.

Will you inform me of the best method of keeping stock during the winter? I find that people differ in the number of times it should be fed daily; some feeding only three times, while others feed five and six times. J. L. B.

Royalston, Nov., 1857.

REMARKS.—In order to use hay of inferior quality, we use a little grain of some kind, cob-meal, oat-meal, cotton-seed meal or shorts, mixed with the cut hay, and then we feed only three times each day. When long hay is fed out, the cattle receive it early in the morning, small fodderings at a time, and as much as they will eat readily for the space of an hour and a half, and

so again at noon and at night. In this way the cattle are kept grinding some five hours. We have no doubt that it is an economical plan to cut the hay, and that twenty dollars' worth of hay and five dollars' worth of meal of some kind, are worth considerable more than twenty-five dollars' worth of hay alone.

Perhaps some gentleman with more accurate information than we possess, will give facts in relation to the matter.

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BAKE THE UNDER CRUST.

Pies are rendered unhealthy and indigestible, frequently, because the under pastry is not baked enough. The under crust may be first baked. The pastry for the bottom of the pie may be put into the pie or baking plate, and after it is baked, the contents of a pie can be put in and baked; or after the pie is baked, in the usual mode, if the under paste is unbaked, the pie can be removed from its platter and placed upon a paper within the oven again.

Iron baking platters, with handles to them, would be economical and convenient for putting into and removing pies from the oven. P.

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COVERING FOR FLAT-ROOFED HOUSES.

A subscriber wishes to know what is the best and cheapest material for covering flat-roofed houses. Will somebody tell him through our columns?

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ELDERBERRY WINE.

FRIEND BROWN:—Will you accept a sample of Elderberry Wine, which was furnished me particularly for you? It was made by ENOCH BANCROFT, of Granville, three years since.

FRANCIS BREWER.

Springfield, Mass., 1857.

REMARKS.—Yes, sir, and drink your health in it too. It is excellent wine, and must be a fine cordial for the sick.

OUR NEW YEAR'S DRESS.

We suppose most of our readers will notice and admire the handsome new dress which the *Farmer* has put on; but if they no not, it is not strange, for our old suit was scarcely half worn out. We at first feared we might be thought a little extravagant, considering the hard times, and the respectable condition of the old suit; but it is a pity that any of our subscribers should be left in doubt and perplexity as to the cause of the clear, sharp and beautiful impression of our type, and the generally improved appearance of our journal, and we have therefore concluded to confess the truth, and throw ourselves upon our readers' indulgence, if they think we pay too much regard to appearances. We are aware that every body despises the empty-headed fop, but then we believe all sensible people admit that a neat, simple and elegant style of dress always becomes a man of solid sense. (This, of course, by way of extenuation, and not of "brag.")

Our outfit is from the Boston Type Foundry, JOHN K. ROGERS & Co., Proprietors, and we think it does great credit to that establishment.

THE HUBBARD SQUASH.—We have received from Mr. GREGORY, of Marblehead, two of these squashes of his raising; but as we had raised several from seed he sent us, we passed these two into other hands. One gentleman reports that "he never knew what the best squash was before." Others, who tried them, say they excel in flavor and in the fineness of the flesh, any squash they had ever tasted. This is our own opinion. Mr. Gregory has advertised some of the seed as for sale. See another column. He raised them at the rate of *five and a half tons of marketable squashes* per acre.

BOYS' DEPARTMENT.

TRUE MANLINESS.

Children are very apt to suppose, that what is manly or womanly can be cut out of cloth or leather; in other words, that clothes, made in the fashion of those worn by men and women, will give some additional consequence to the young who wear them. I know a very little boy, who took great satisfaction in having loops sewed to his socks, so that he might draw them on as boots are drawn; and the eargerness so commonly displayed by children still young, to assume the coat, the cravat, boots, etc., is hardly less childish.—Thus they show their childishness in their attempts to be manly.

This, however, would be a matter of very little consequence, if they were not apt to lose sight, in this way, of the essential attributes of manliness. To be manly is to "dare to *do*," not to *wear*, "all that may become a man." I will give you my idea of what it is for a boy to be manly, by two or three illustrations.

A boy of six years old was required by his father to bring the cows home every night. One dark, rainy evening, in the autumn, just as the family had settled themselves to their accustomed occupations, about a bright, cheerful fire, the father asked:

"Did you bring the cows home, my son?"

"Yes, father," he replied; adding, after a moment's hesitation, "but I did not put up the bars."

"Then go directly back again and put them up."

It was manly in this boy to confess his omission, at the expense, which he foresaw, of a dismal trudge through the rain and darkness to repair it.

I know another boy, of nine years old, who mounted one day in his father's yard a very spirited horse, and was thrown almost immediately. His father stood by looking through a window, but did not interfere, when he saw his son preparing to amount a second time. He was thrown a second time.

"Thrown again, my boy?" he exclaimed.

"Yes, sir; but I'll conquer him yet."

A third time the boy mounted, and then made good his word, the horse yielding to him completely.

This was a manly boy.

Of another, twelve years old, it was told me, that being at a large school in one of our cities, he was visited in his room by two young men, half-a-dozen years older than himself, who used very profane language. After hearing for some time what was highly offensive to him, he said, "Gentlemen must be so good as to abstain from this language, or leave the room." They submitted to the rebuke and remained. This was a still higher kind of manliness.

It was true of another boy, not so old as this, who had long been afflicted with a diseased and helpless leg, that being told, one Sabbath morning, of the surgeon's decision to amputate it, he said, "Then I will have it done immediately, before mother comes home from church, that she need not know anything about it;" and it was done immediately.

If you consider these as fair illustrations of my subject, you will admit that the manliness exhibited by these boys could in no case have been enhanced by any fashion of garments.

I beg you to observe, that the terms, man and woman, manly and womanly, in their proper and full import, convey far more than those of gentleman and lady, gentlemanly and ladylike. A true man and a true woman will be gentlemanly and ladylike, and a great deal more besides.—There are men, and there are so-called gentlemen, who have little or nothing that is manly about them.

MORAL TONE OF A SCHOOL.

The Rev. J. P. Norris, Queen Victoria's Inspector of Schools, on the moral tone of a school, says:—"The value of a school, after all, does not depend on the branches of learning that are studied in it—no, nor upon *the life that is lived in it.* Unhappily for many of those who write and speak about education, this is a truth of which the full force can be comprehended by none but those who are spending days and years of their lives within the four walls of a school. Once in a report addressed to your lordships I endeavored to explain to teachers what I meant when I spoke to them of the *moral tone* of their schools. Six years have passed since that Report was written, and I cannot say that I find it easier now than I did then to define exactly wherein this most subtle quality of the school resides. But this I know, that the longer one lives in a school, or rather, the more one's life is spent in passing through a great variety of schools, the more sensitive one becomes to this their most important characteristic. Spend an hour or two in one school, and you feel all the while as a man fells who is confronted for some time with a bad countenance. Go into another, and all is right and healthy again. and even before you inquire what branches of education are taught you are convinced that it cannot but be well for children to spend their days in so bright and wholesome an atmosphere. Whatever be the value or direction of the intellectual teaching, there is heart and love and healthy moral influence at work, and therein lies the real education on which the after-man and after-woman depends. It is surely this that Milton had in view when he said that the end of education was "to repair the ruins of our first parents, by regaining to know God aright, and out of that knowledge to love him, to imitate him, to be like him."

LADIES' DEPARTMENT.

DOMESTIC RECEIPTS.

WISCONSIN FRUIT-CAKE.—Three-quarters of a pound of raw salt fat pork, chopped very fine; then pour on a pint of boiling water, one cup of sugar, two of molasses, two teaspoonfuls of cloves, one of cinnamon, one nutmeg, two teaspoons of saleratus, one pound and a half of raisins, also a citron and currants if liked, and flour as stiff as can be stirred; bake very slowly an hour, or longer if necessary, as it will burn without great care. This will make three loaves, and will keep well.

GINGER SNAPS.—Two cups of molasses, one of lard, a tablespoon of ginger, a tablespoon of saleratus, dissolved in as little hot water as possible; flour; roll very thin.

SODA JELLY-CAKE (delicious.)—One teacup of sweet cream, two of sugar, two eggs, half a teaspoon of soda, one of cream of tartar stirred in the flour; flour to the consistence of butter cakes; bake immediately.

TEA-CAKES.—One cup of butter, two of sugar; beat together; one cup of sour milk or water, a teaspoonful of saleratus; spice with nutmeg or caraway; flour to roll out; mix as soft as possible.

SAGO PUDDING.—Wash a teacupful of sago; put it in your pudding dish, and pour on a quart of boiling water, stirring all the time; put in a little salt and a tablespoon of sugar. The longer it stands thus before baking, the better. Bake slowly an hour. Eaten with sugar and butter stirred together.

FOR A BURN.—Raw cotton, flour and sweet oil, applied immediately, is the best remedy I ever saw tried. Rub on the flour first, then the oil, and lastly bind a quantity of cotton.—*Godey's Lady's Book.*

ONIONS.—I perceive that Senator Hale objects to onions on account of the unpleasant odor which they communicate to the breath. If he will swallow a little vinegar after eating, it will remove the cause of his objection. What is much better in this case, is a few kernels of burnt coffee, taken immediately after eating. It will effectually remedy the evil spoken of.—*Granate State Farmer.*

TO KEEP PART OF A BOTTLE OF PORTER OR ALE BRISK.—Put in the cork firmly, and set the cork end downwards, in a tumbler, or other vessel, nearly full of water.

DELICATE CAKE.—Stir to a cream a pound of powdered white sugar, seven ounces of butter; then add the whites of sixteen eggs, beaten to a stiff froth, half a nutmeg, or a teaspoonful of rose-water, or lemon; stir in gradually a pound of sifted flour; bake the cake immediately; the yolks can be used for custards.